



3D-МОДЕЛИ ТПО ИНДИВИДУАЛЬНЫМ ЗАДАНИЯМ ИНЖЕНЕРНОЙ ГРАФИКИ В СИСТЕМЕ ТРЕХМЕРНОГО ТВЕРДОТЕЛЬНОГО МОДЕЛИРОВАНИЯ

3D Studio MAX

Наглядное пособие для студентов
строительных специальностей
дневной формы обучения

Учебное электронное издание

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Настоящее электронное пособие разработано на кафедре инженерной графики строительного профиля для студентов 1-ого курса строительных специальностей дневной формы обучения, изучающих курс инженерной графики.

Пособие представлено в виде презентационного материала, содержащего в себе статические виртуальные модели, созданные в системе трехмерного твердотельного моделирования 3D Studio MAX.

В нем проиллюстрированы отдельные варианты индивидуальных заданий по инженерной графике, на примере прямой трехгранной призмы, прямого кругового цилиндра и др. Показана последовательность образования отдельных геометрических объектов каждого блока задач. Данный материал подготовлен в помощь студентам при выполнении индивидуальных заданий по инженерной графике с целью повышения их уровня подготовки по этому предмету, а также другим графическим дисциплинам.

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3ds max



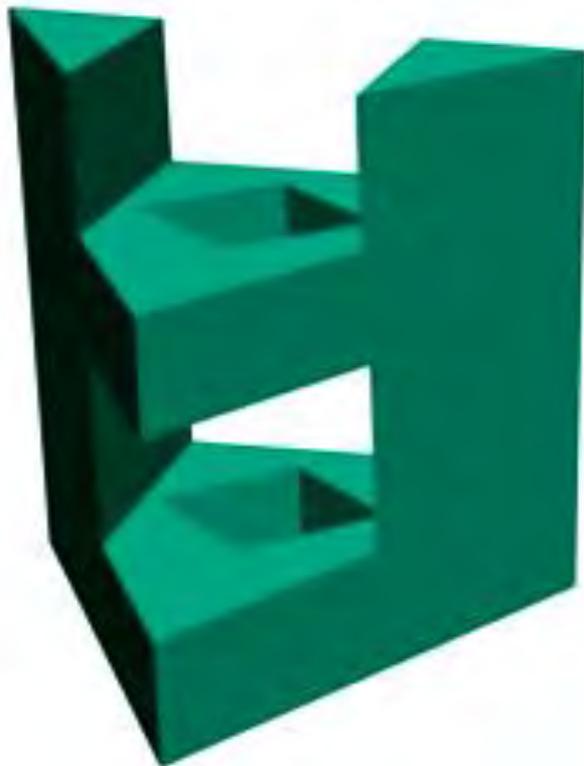
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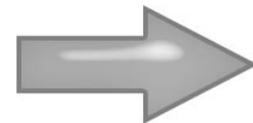
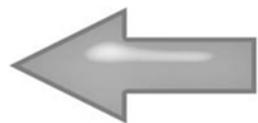
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Задача № 1. ПРЯМАЯ ТРЕХГРАННАЯ ПРИЗМА СО СКВОЗНЫМИ ОТВЕРСТИЯМИ

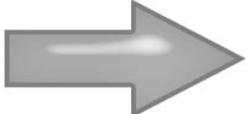
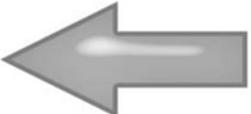


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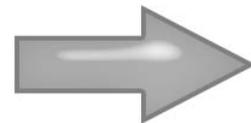


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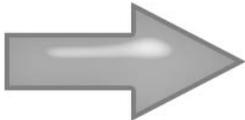
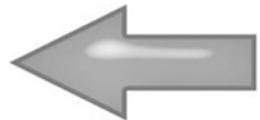


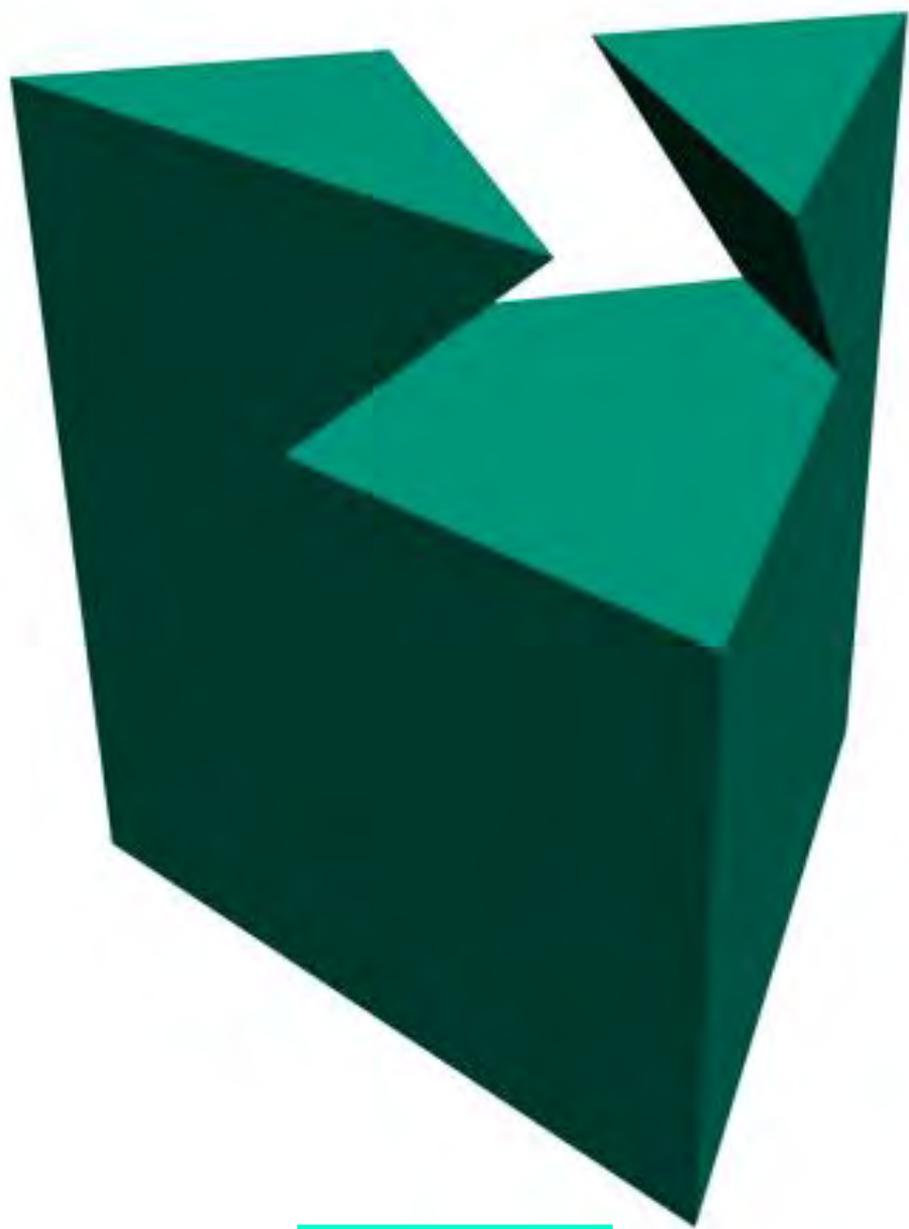
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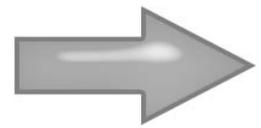
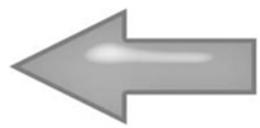


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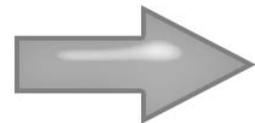


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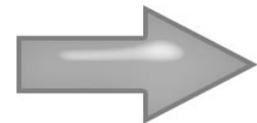
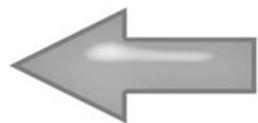


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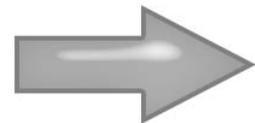
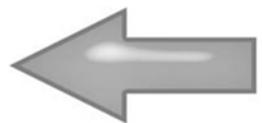


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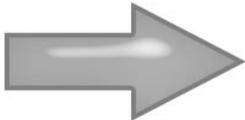
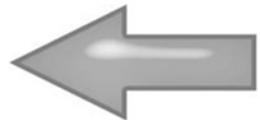


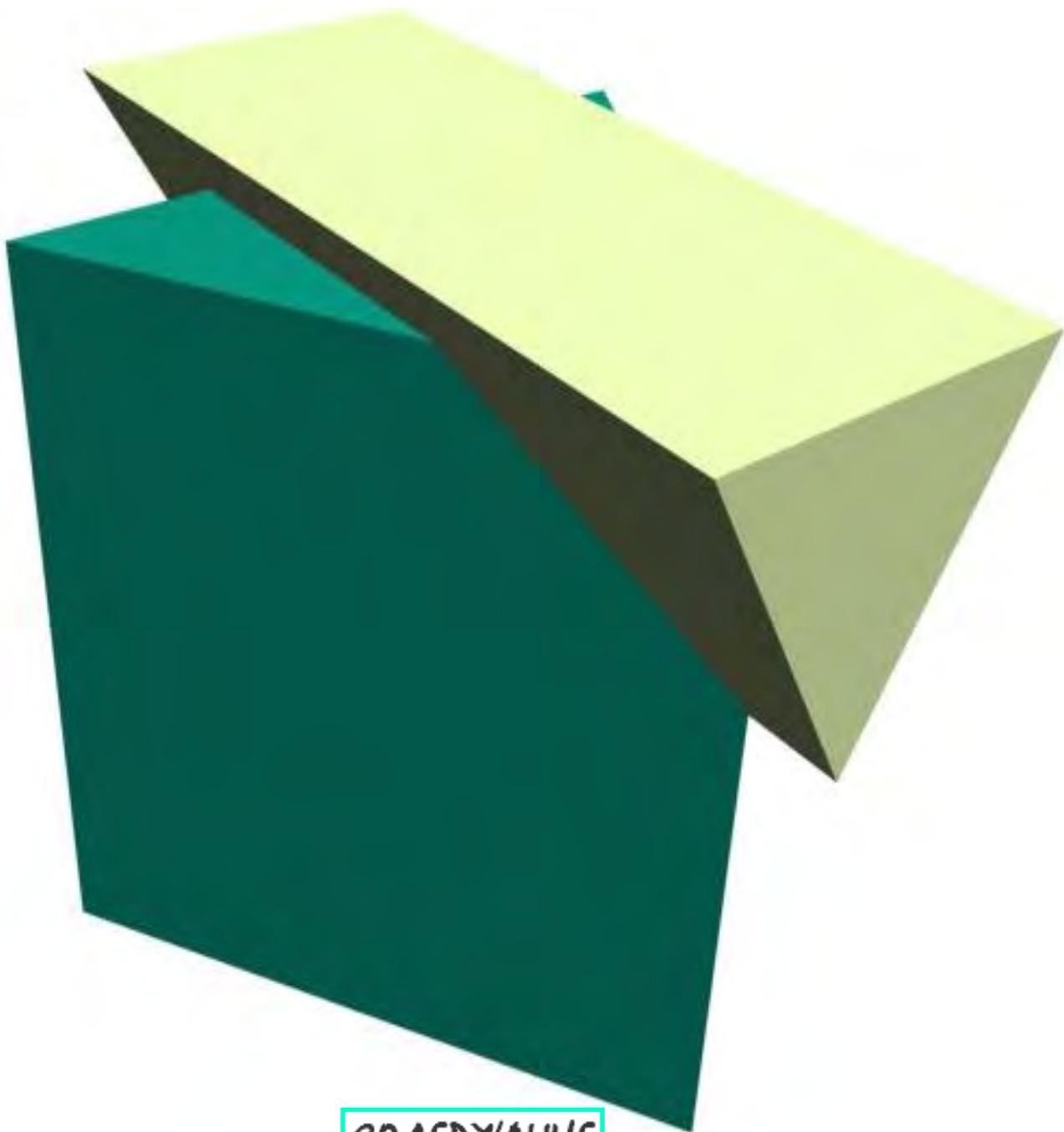
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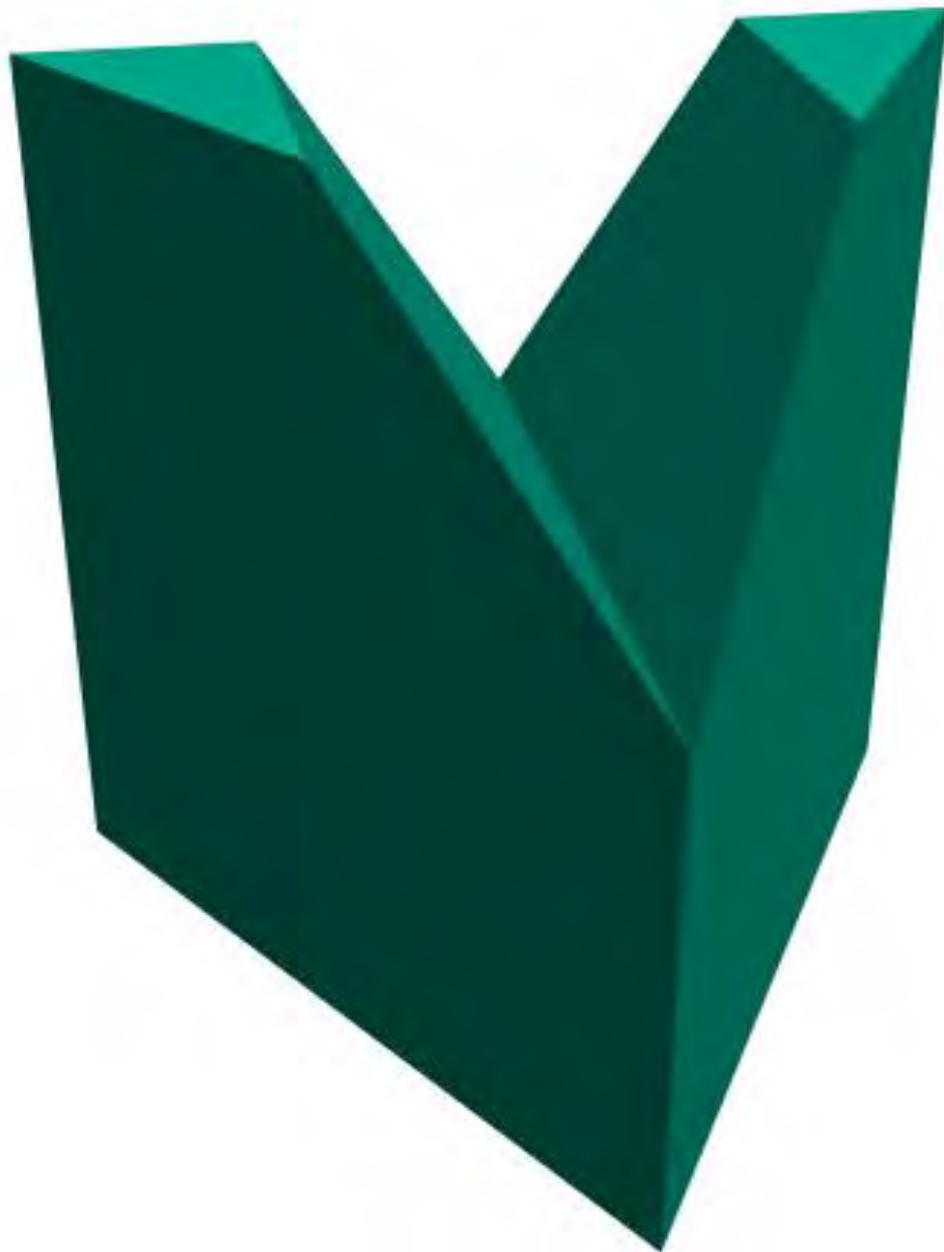


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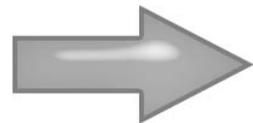
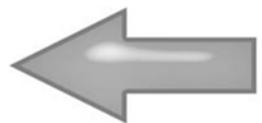




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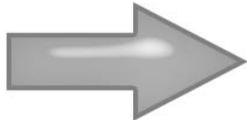
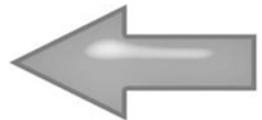


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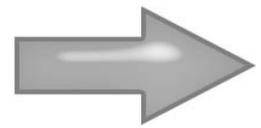
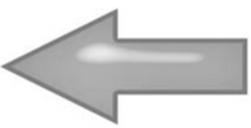


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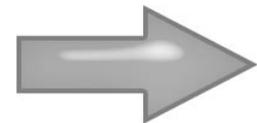
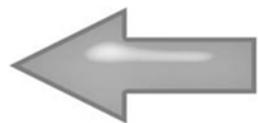


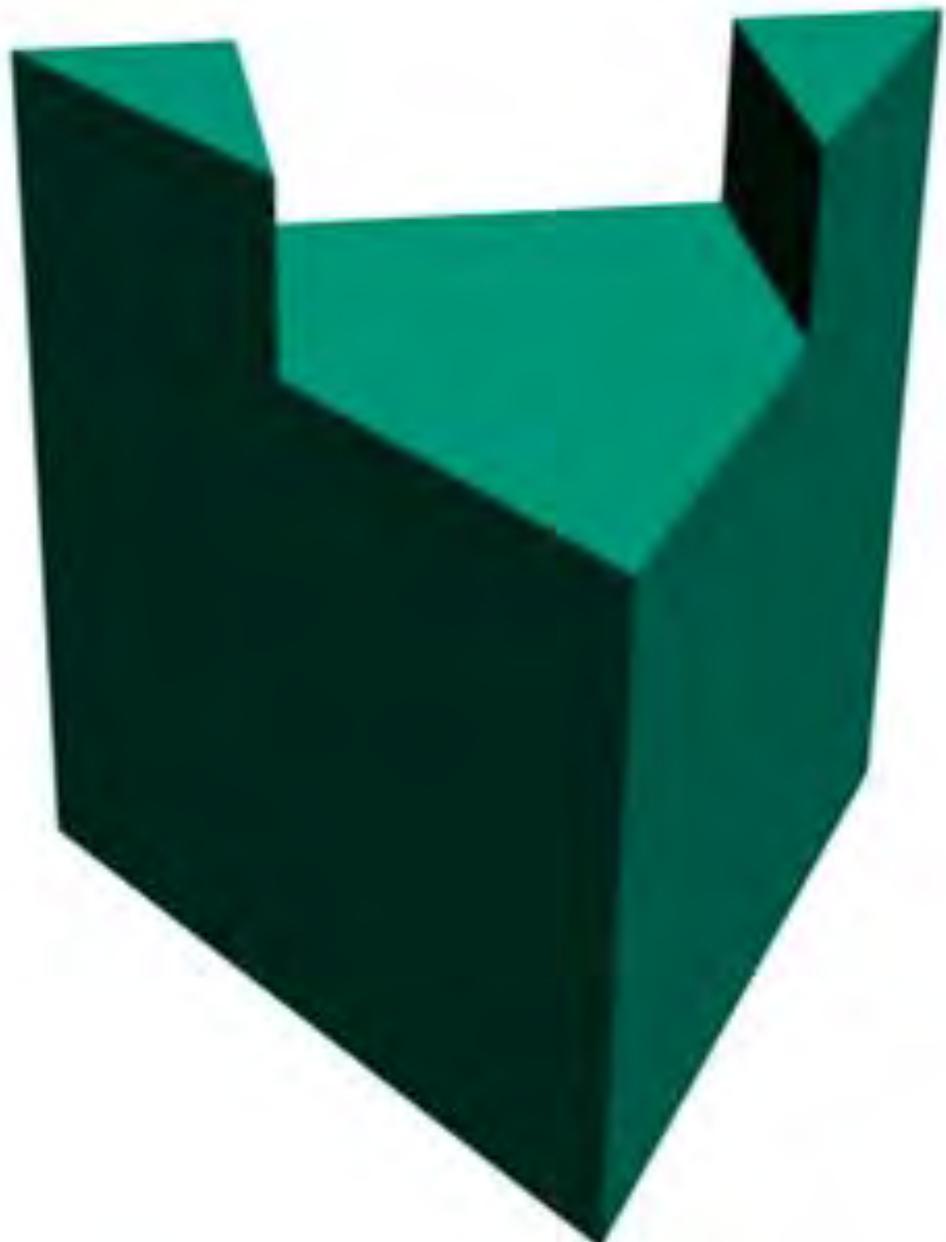
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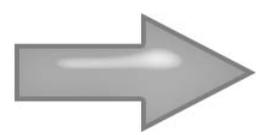
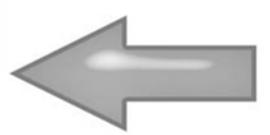


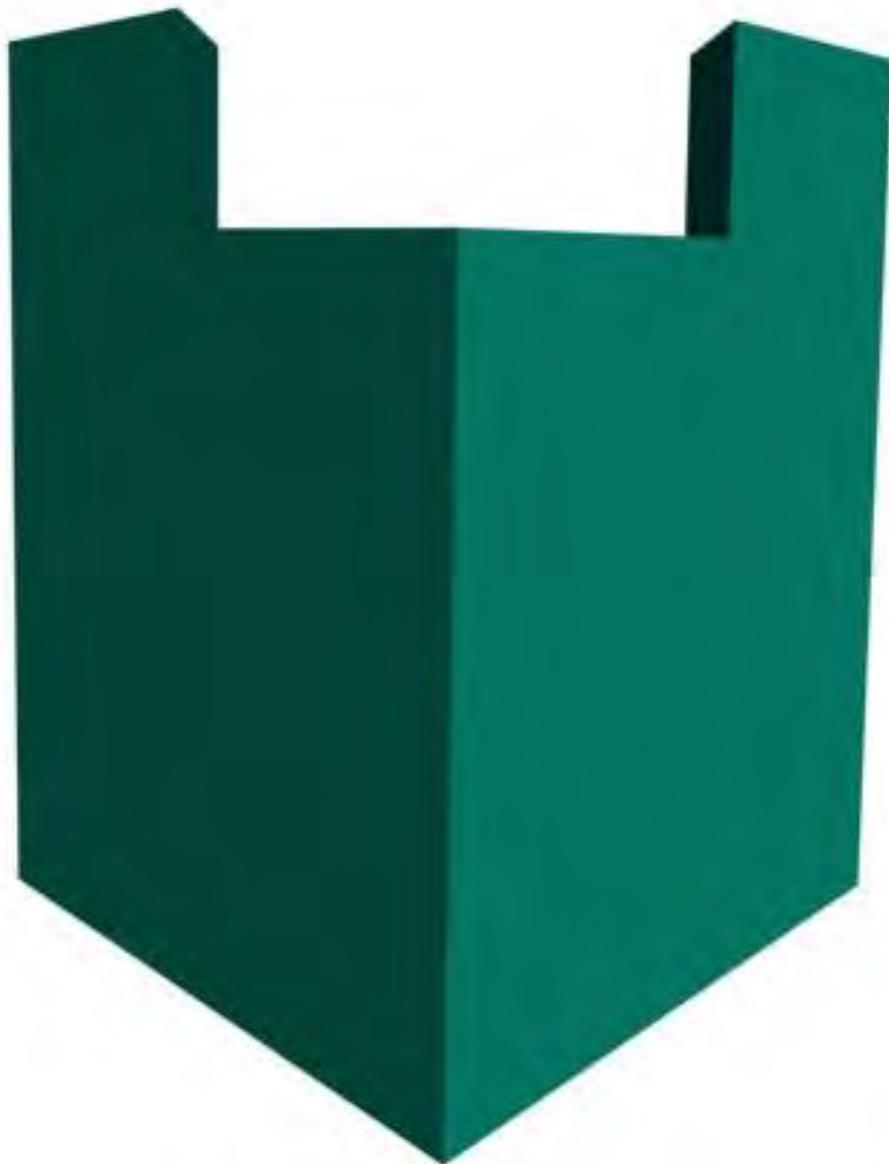
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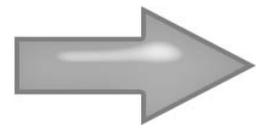
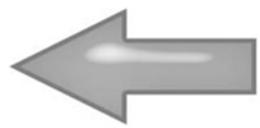


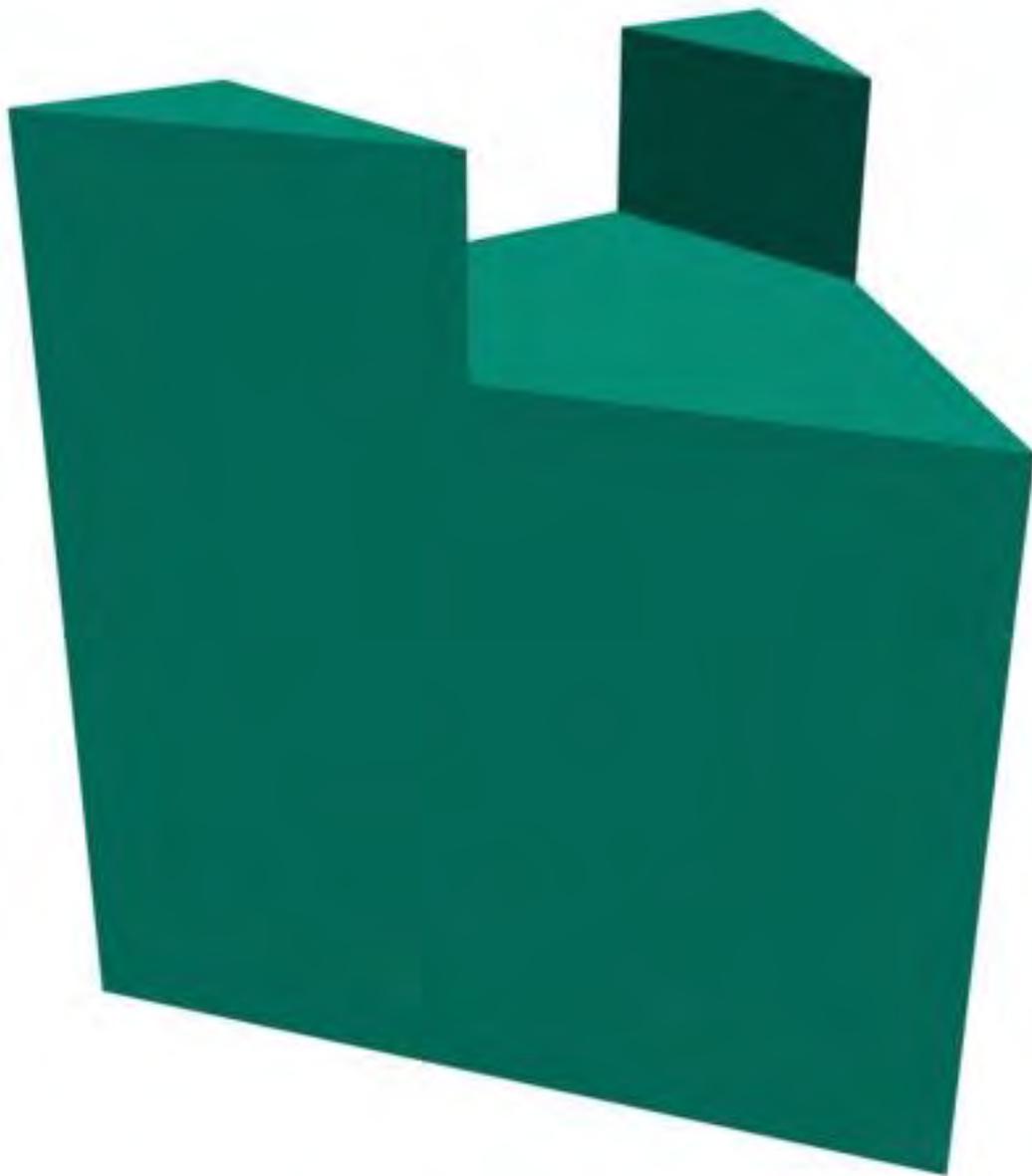
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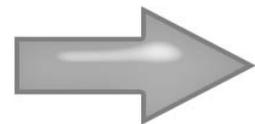
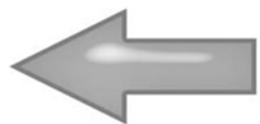


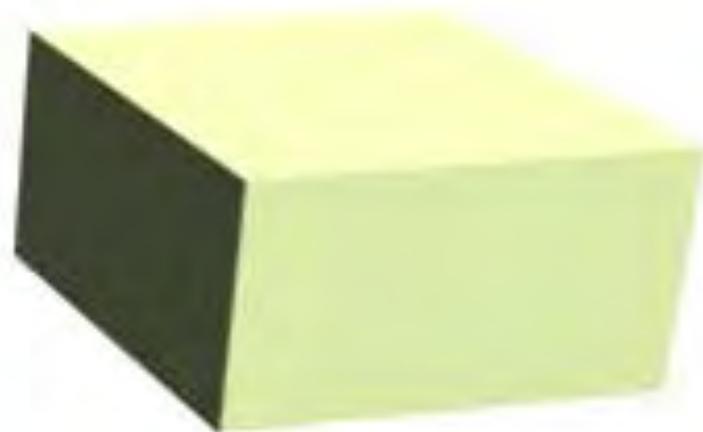
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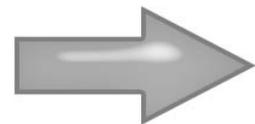
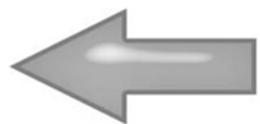


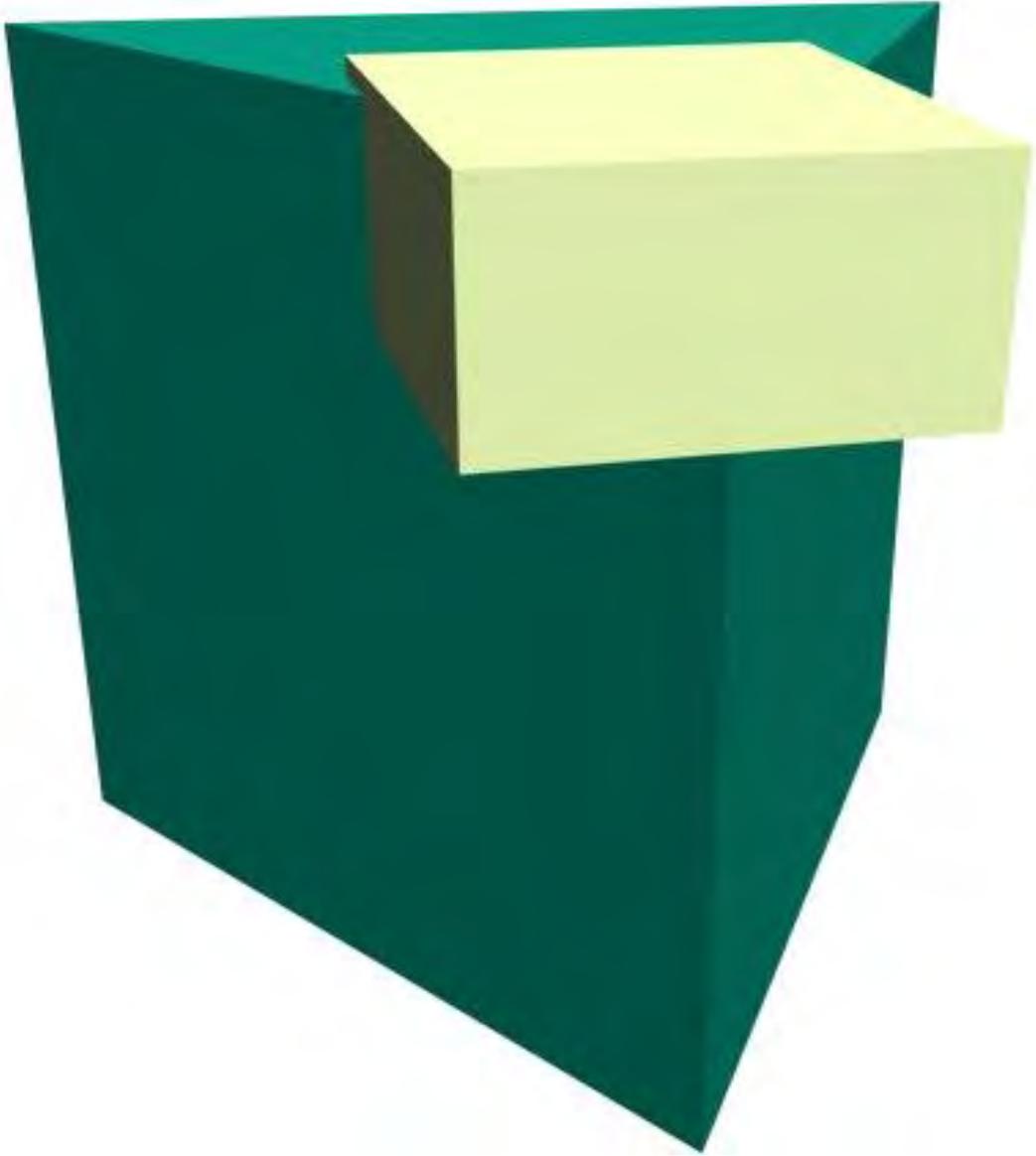
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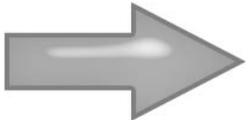
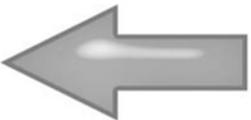


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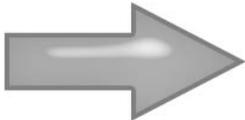
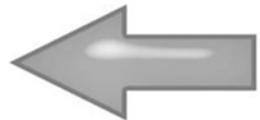


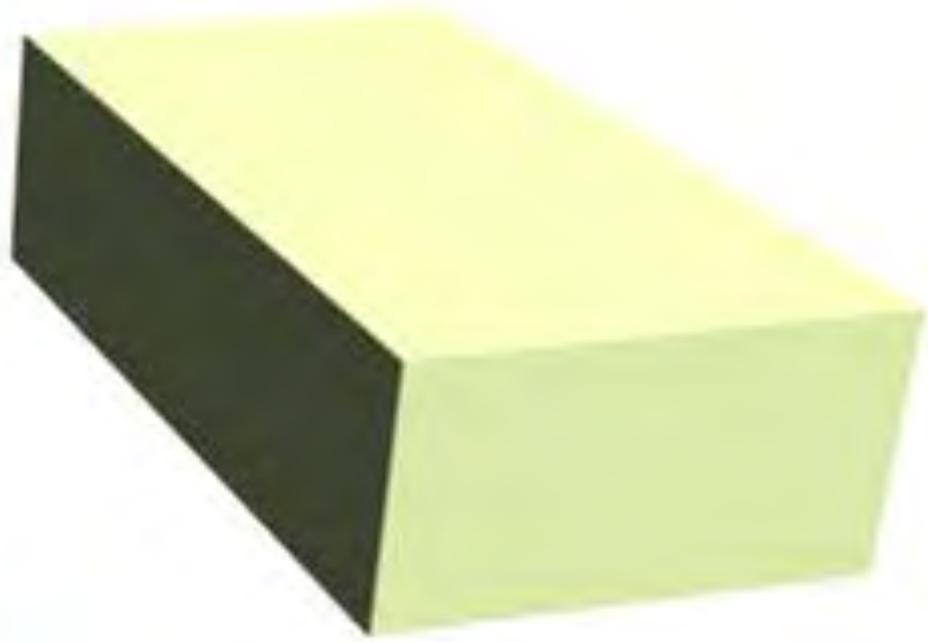
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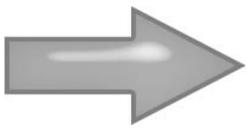
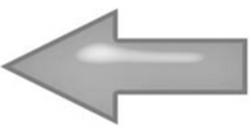


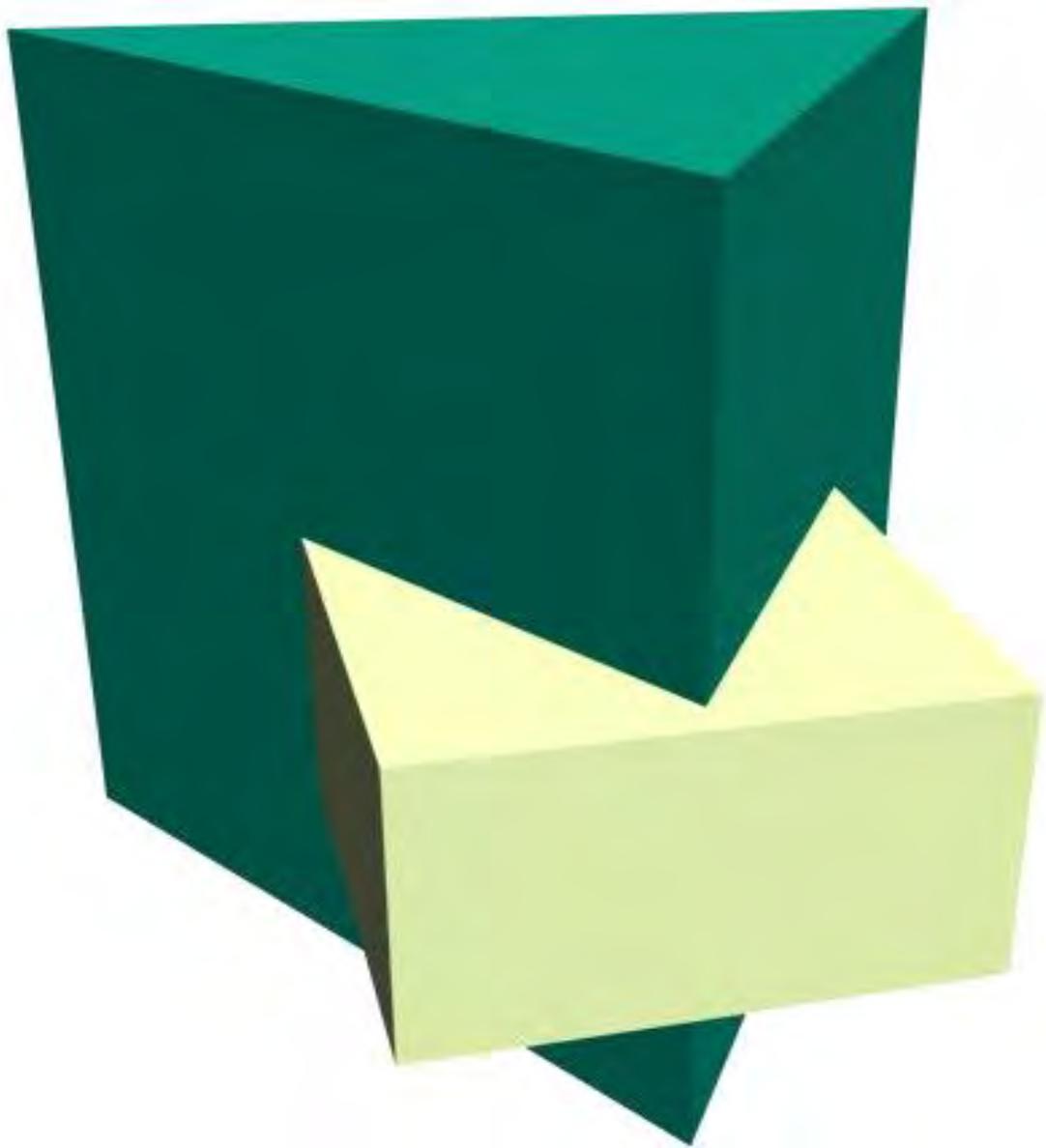
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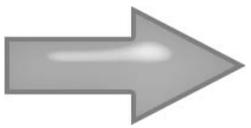
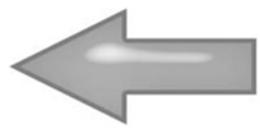


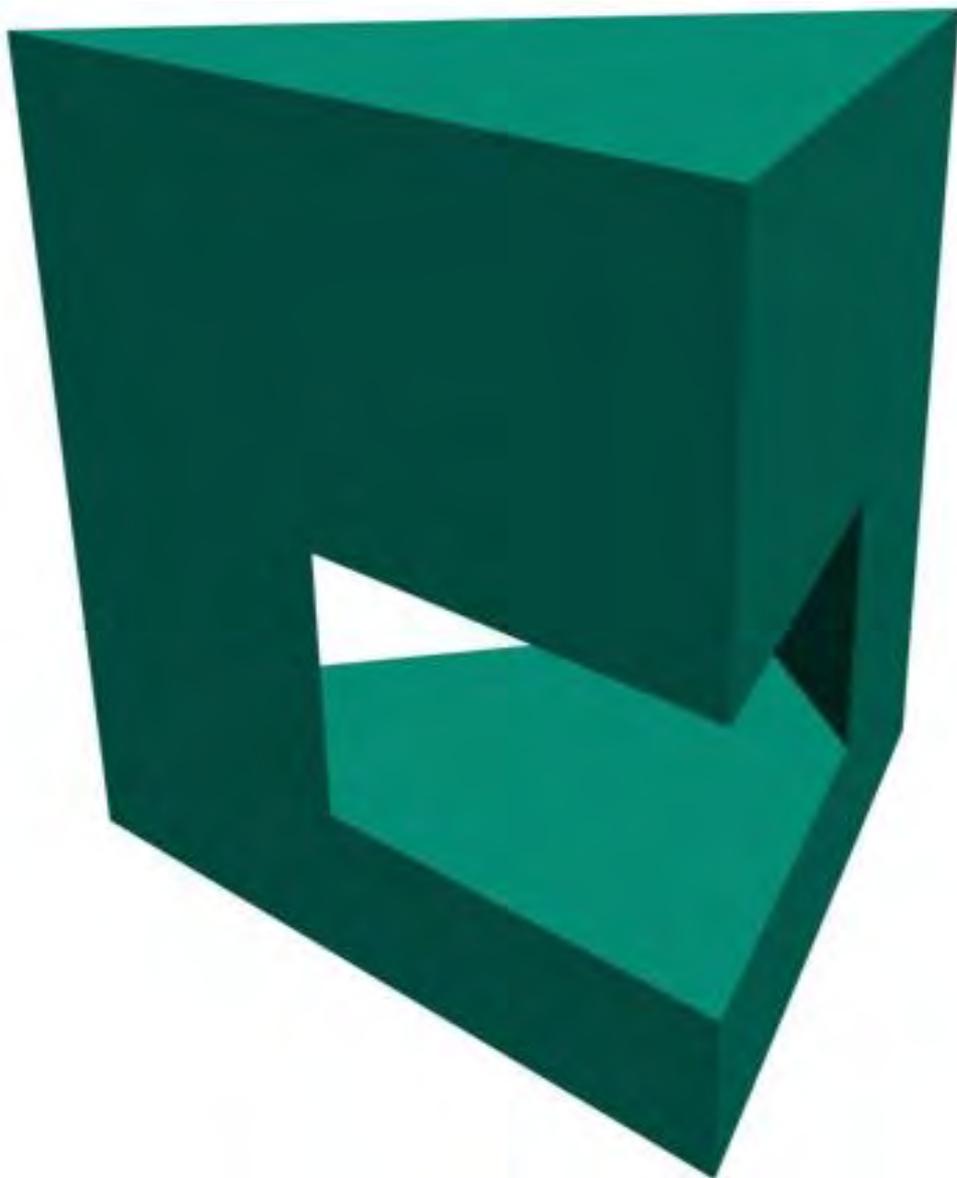
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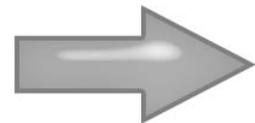
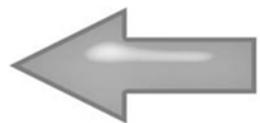


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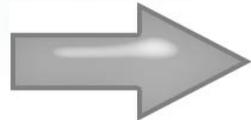
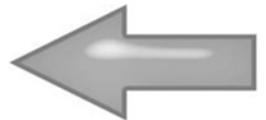


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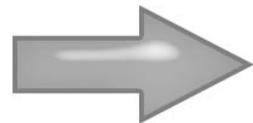
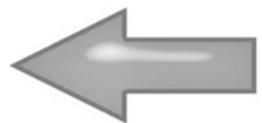


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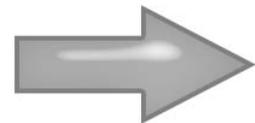
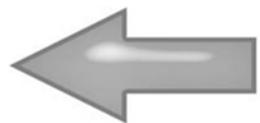


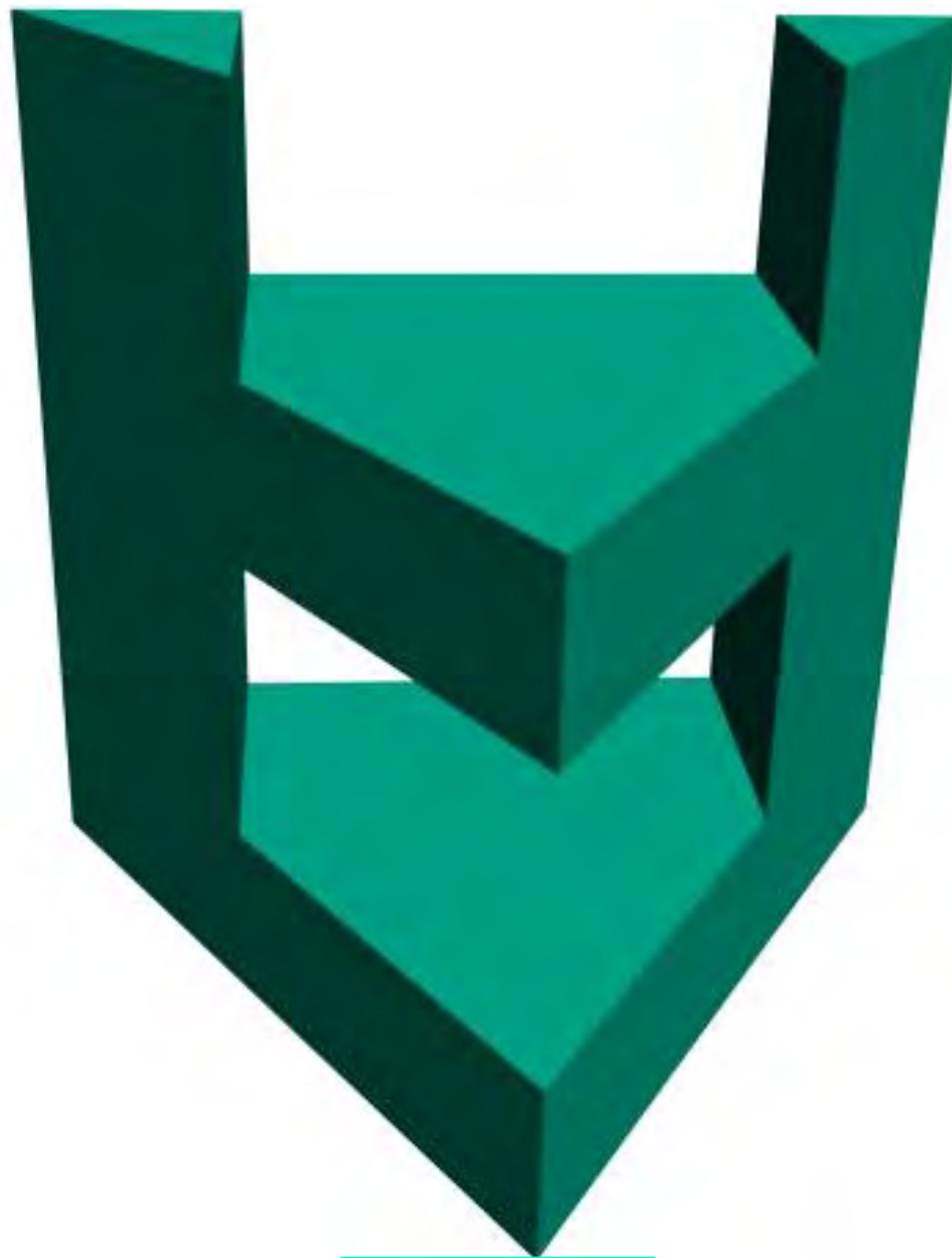
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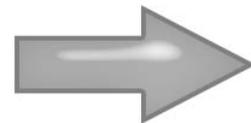
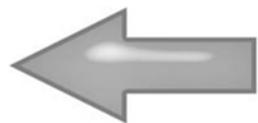


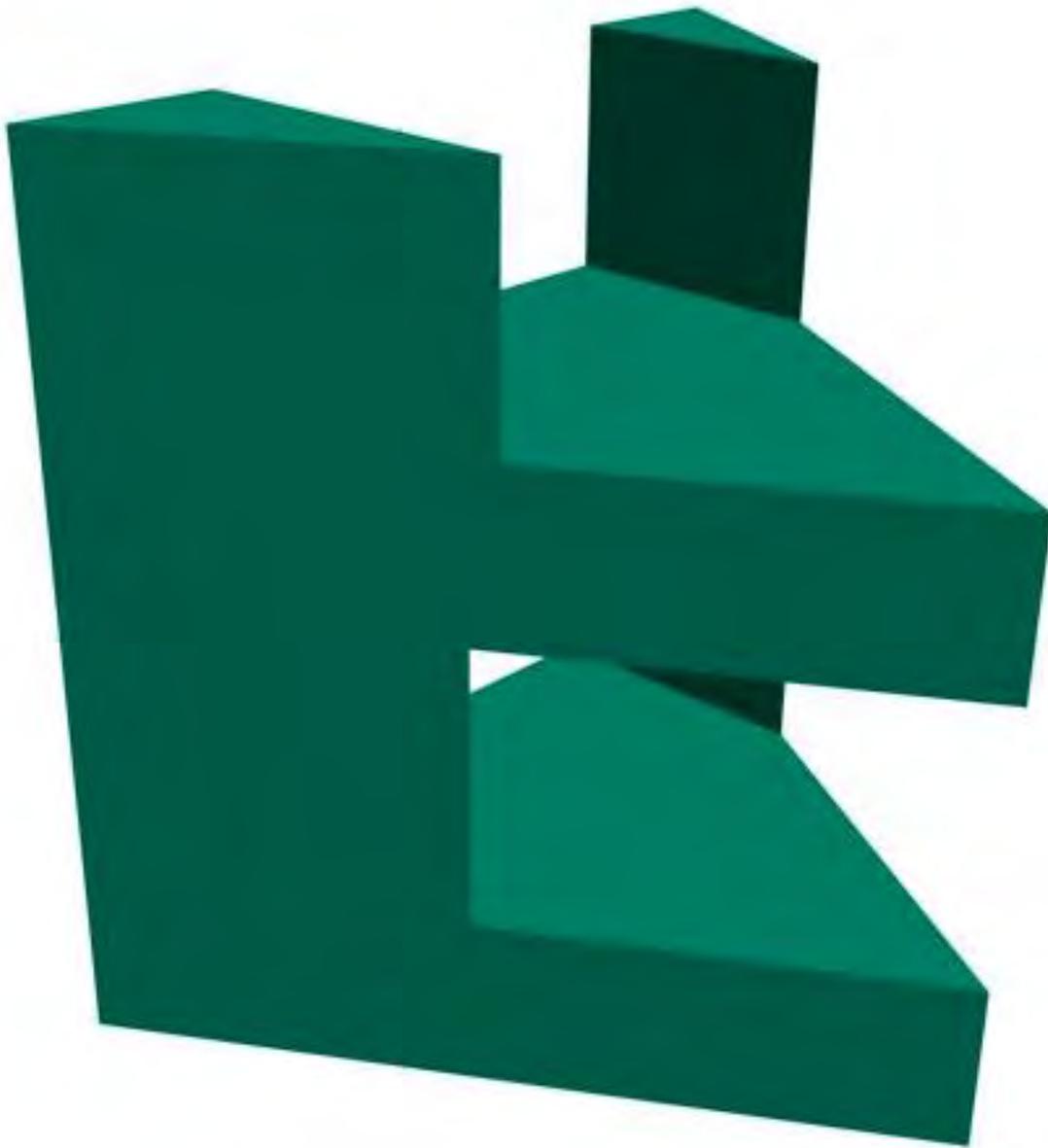
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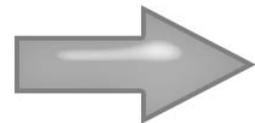
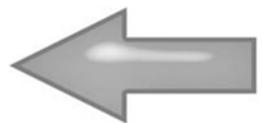


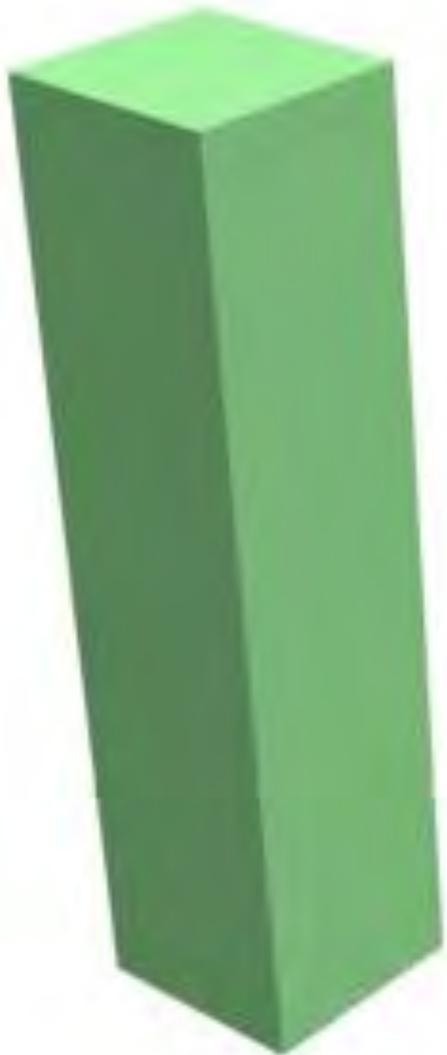
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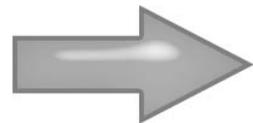
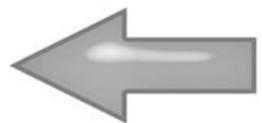


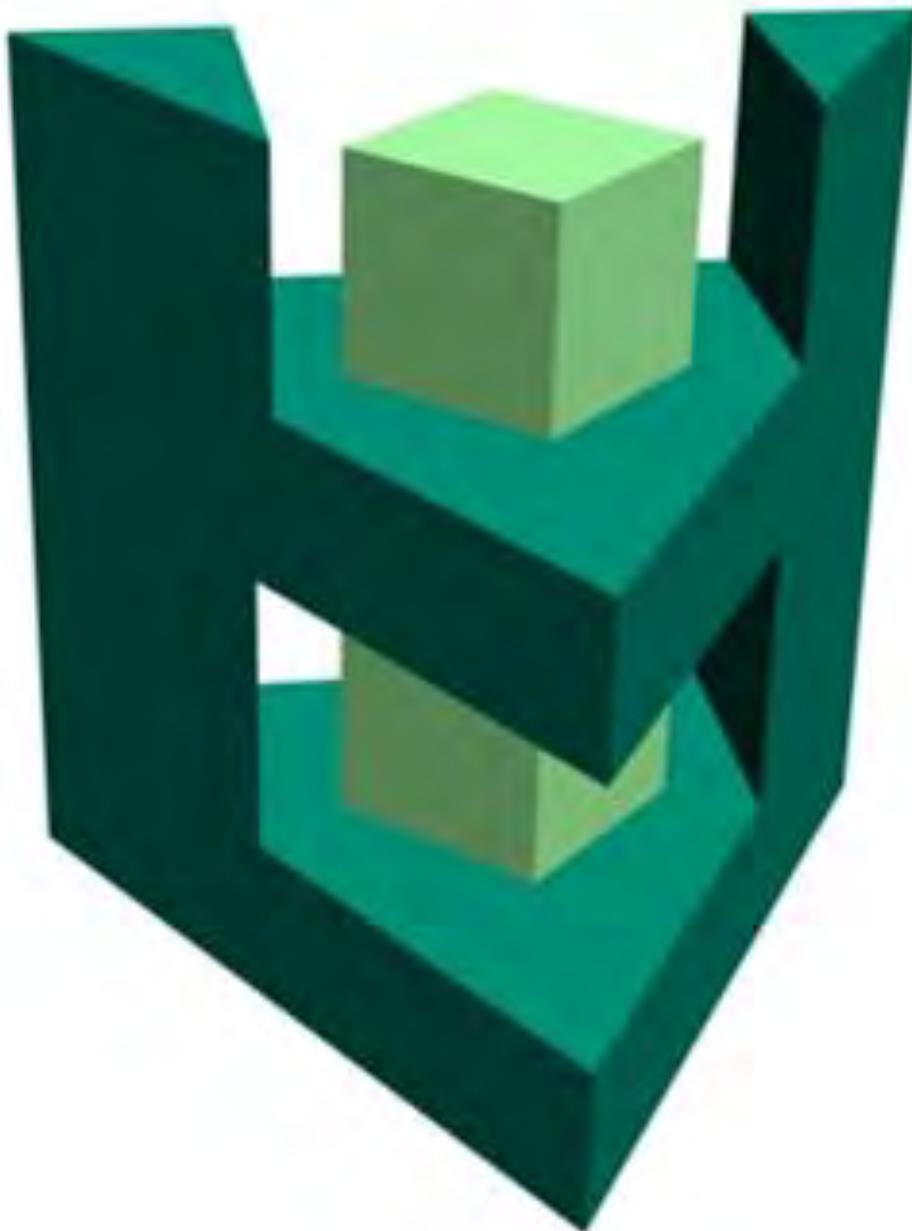
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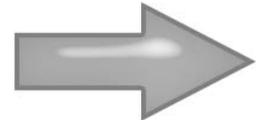
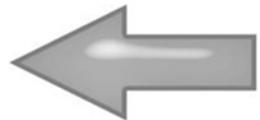


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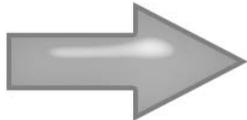
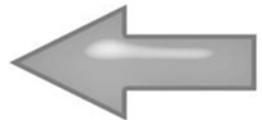


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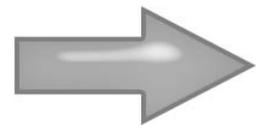
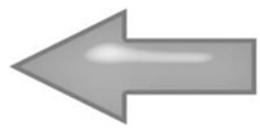


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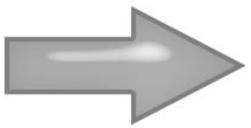
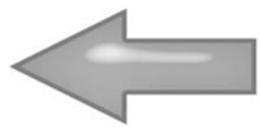


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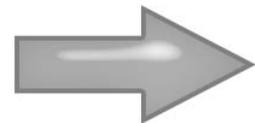
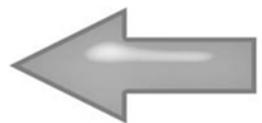


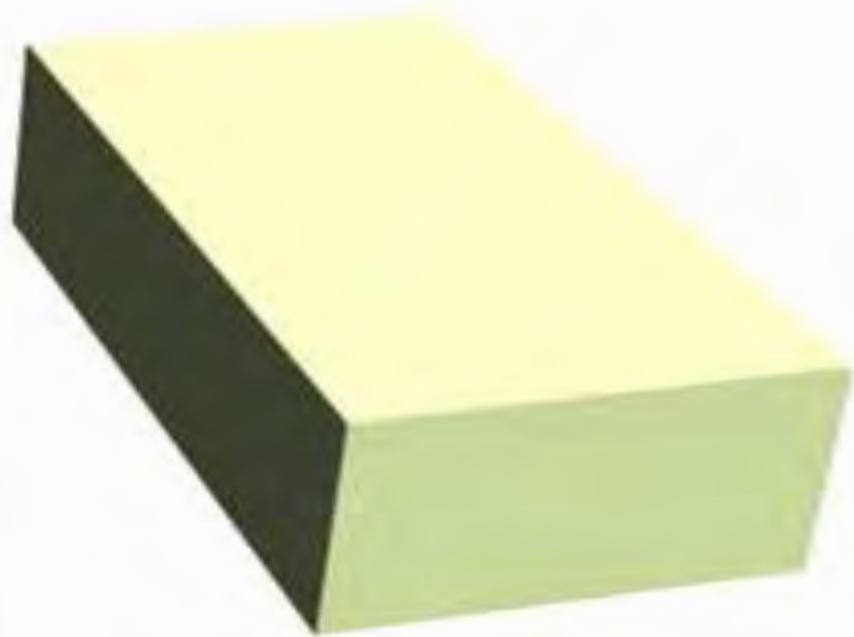
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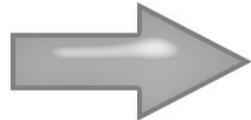
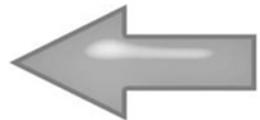


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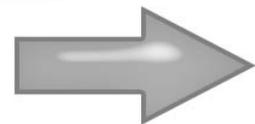
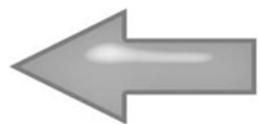


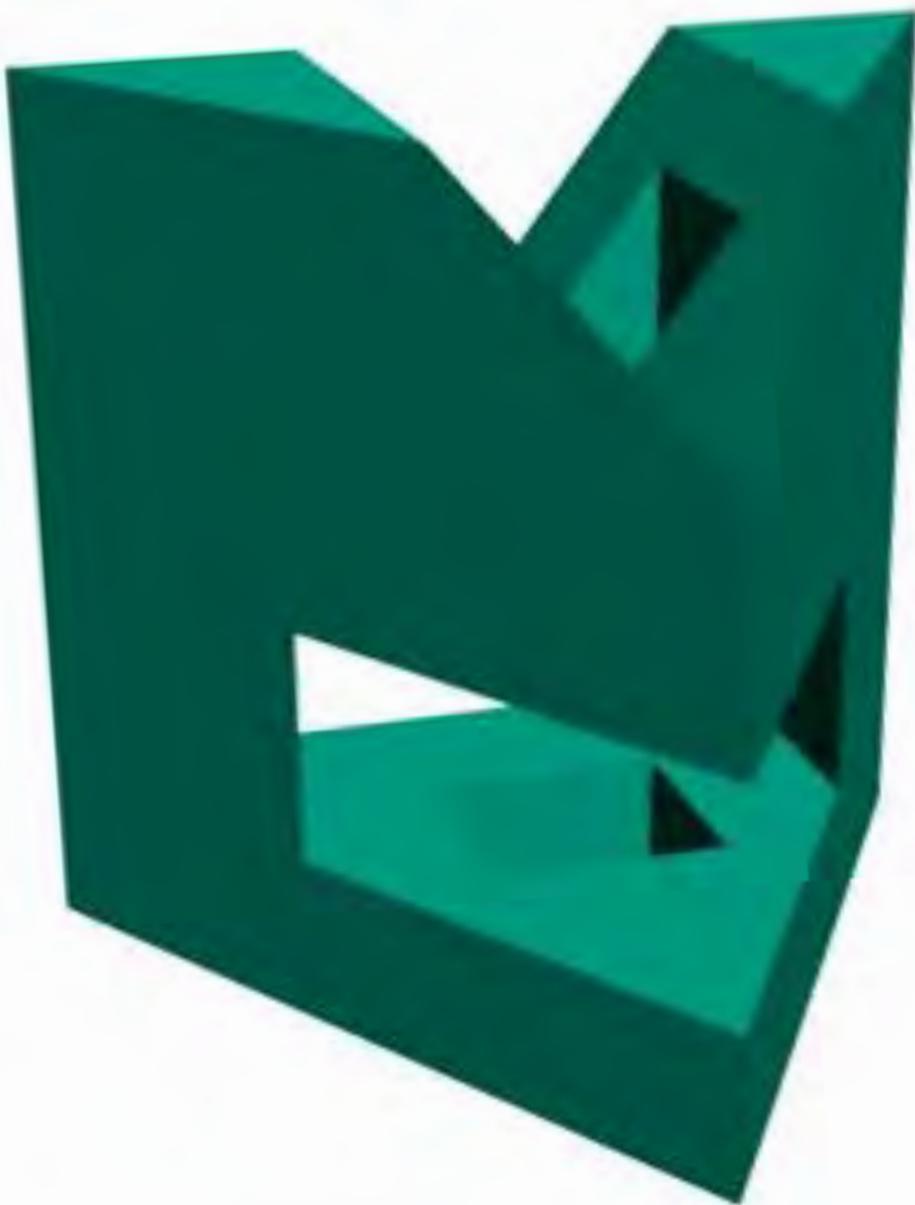
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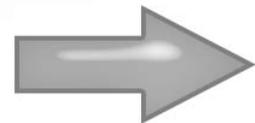
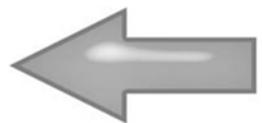


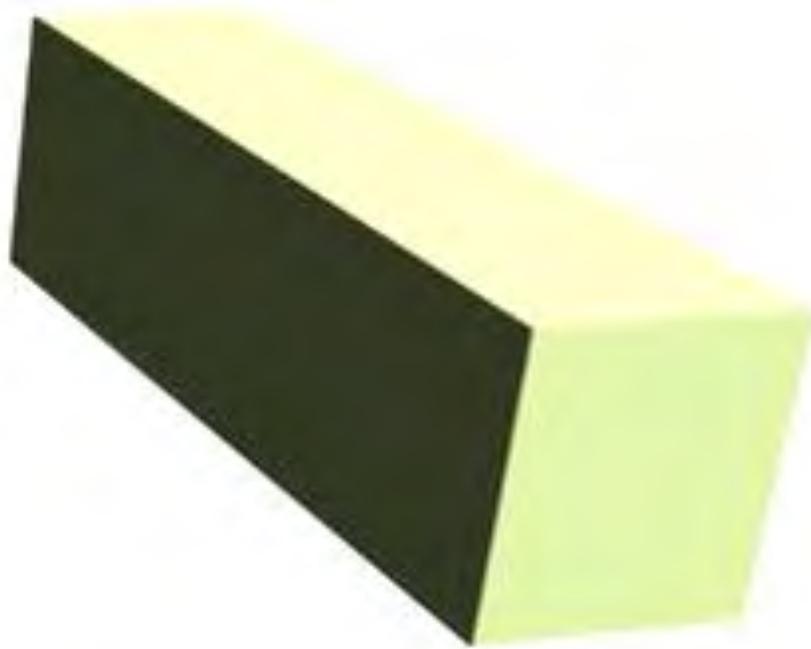
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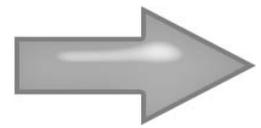
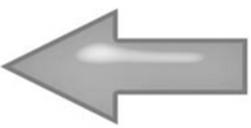


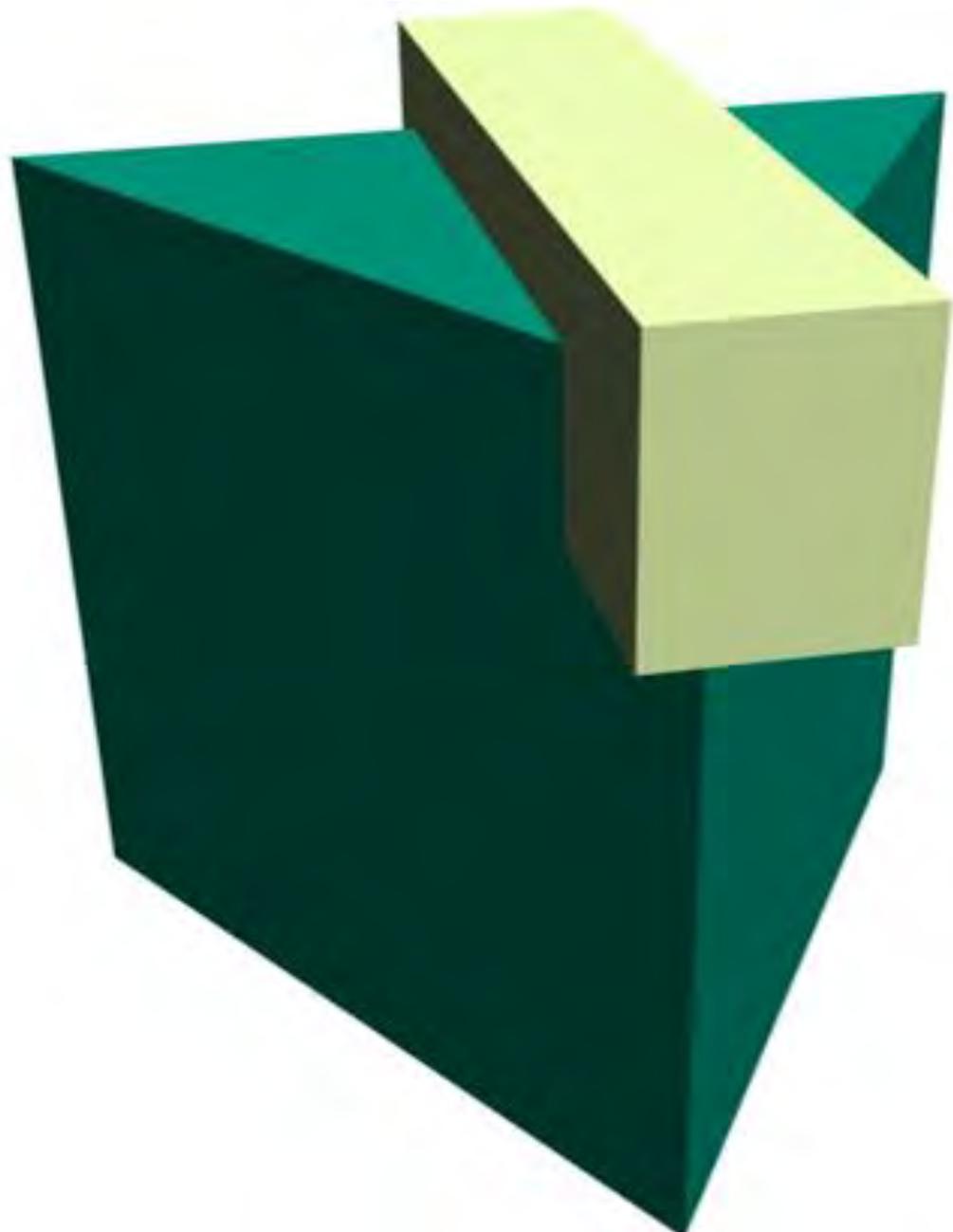
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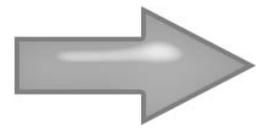
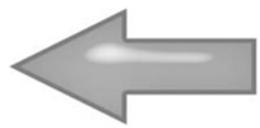


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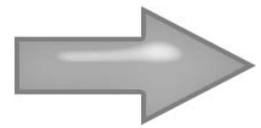
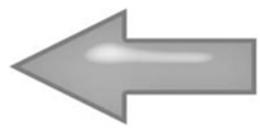


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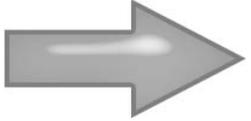
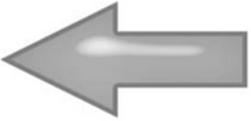


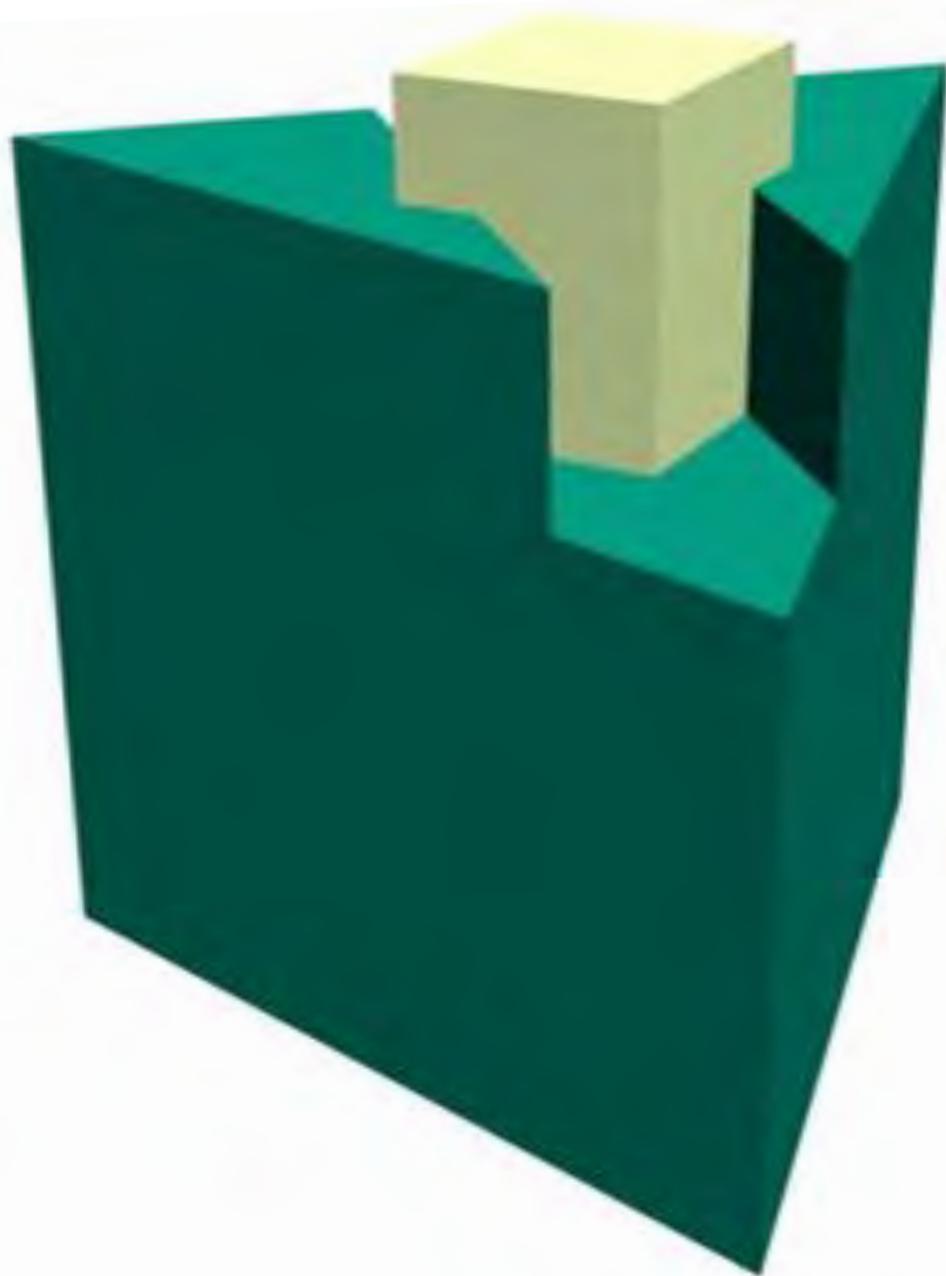
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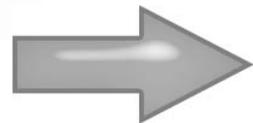


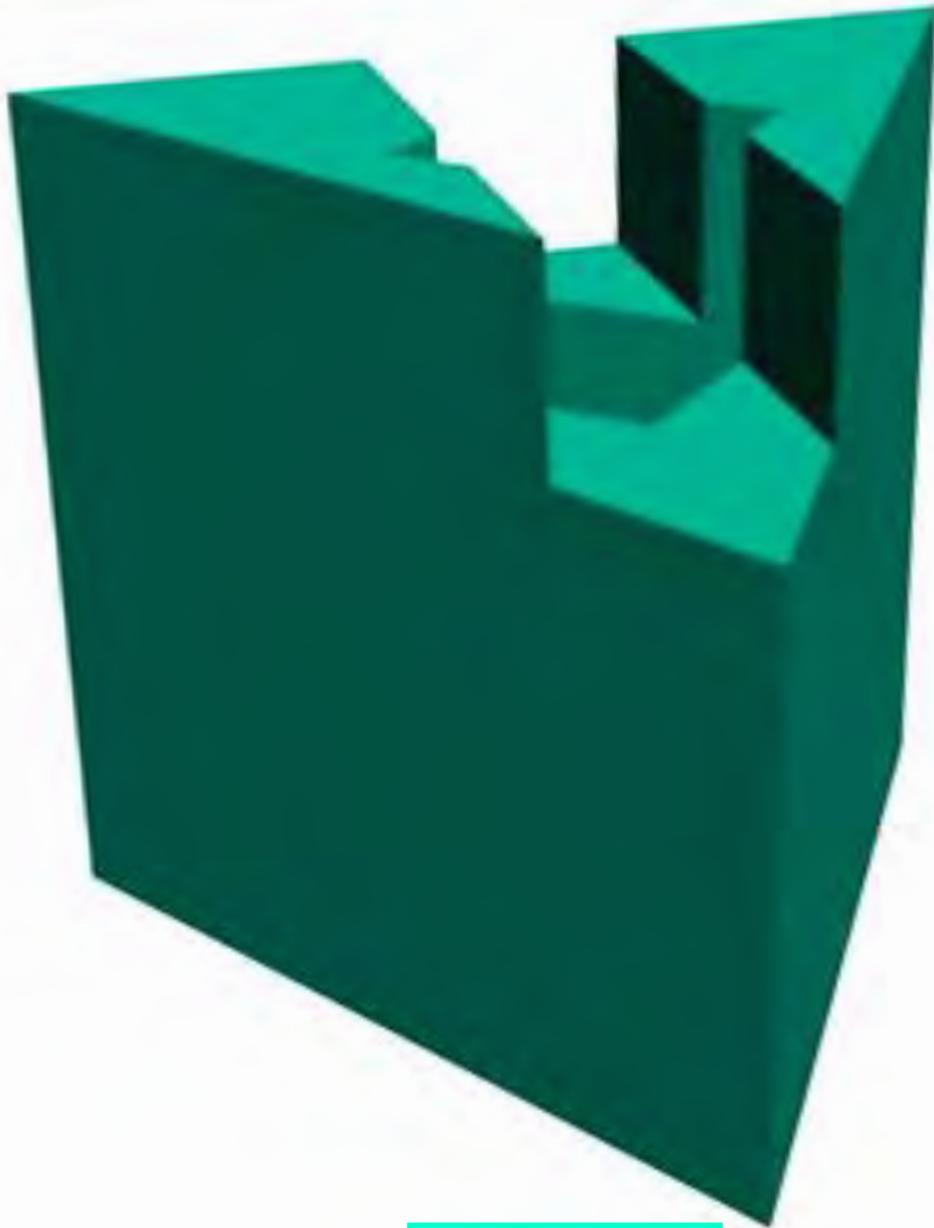
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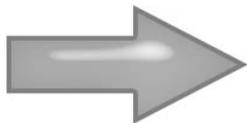
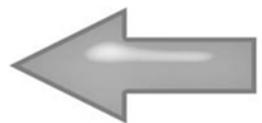


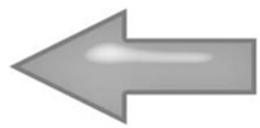
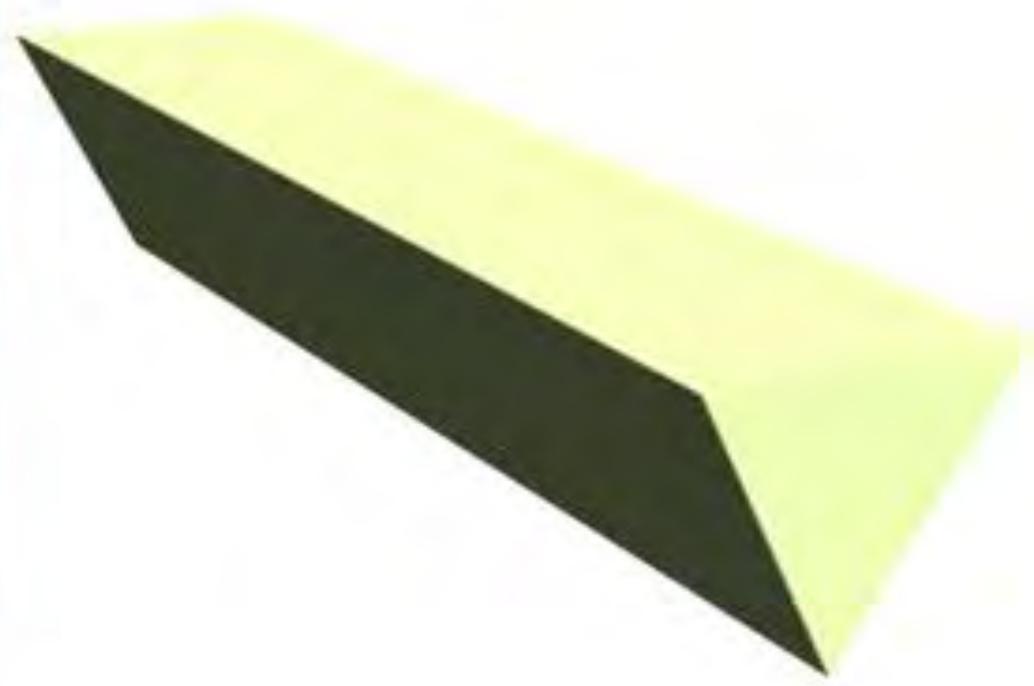
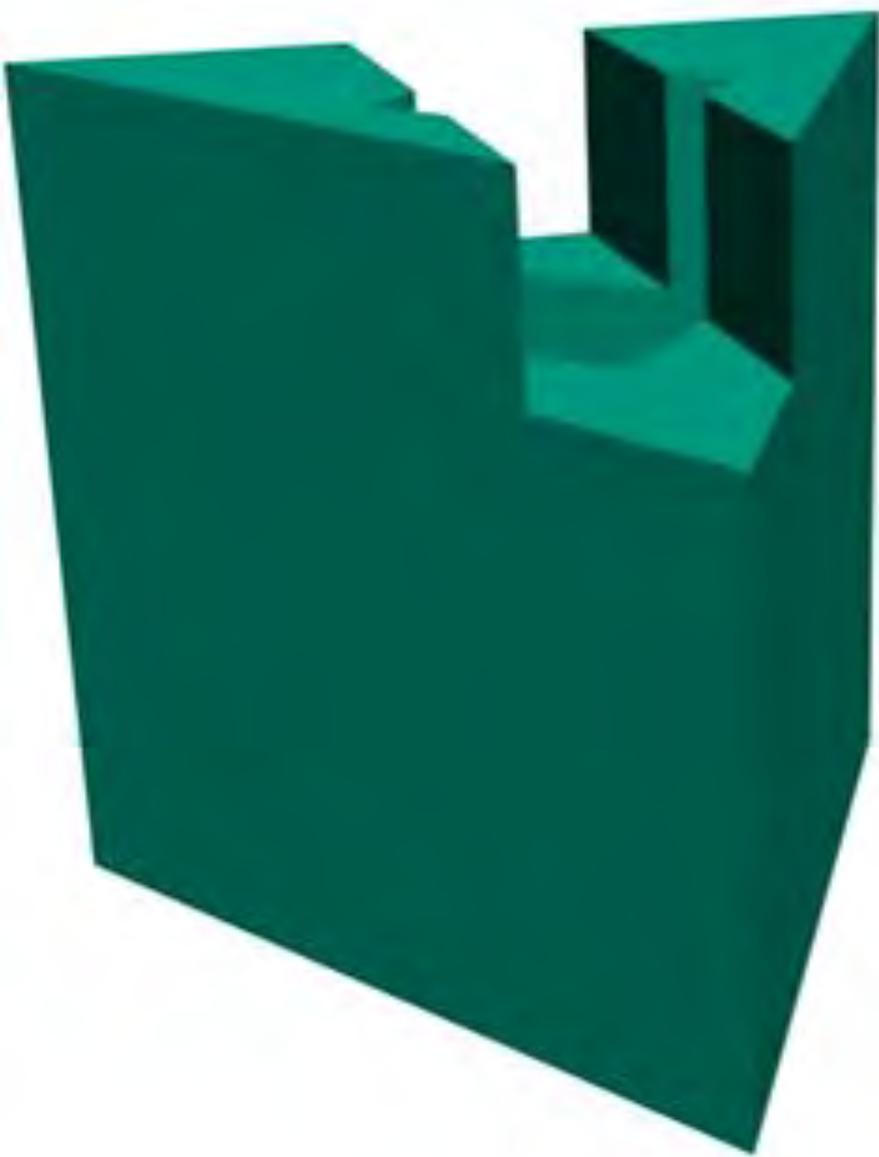
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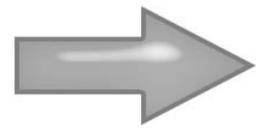


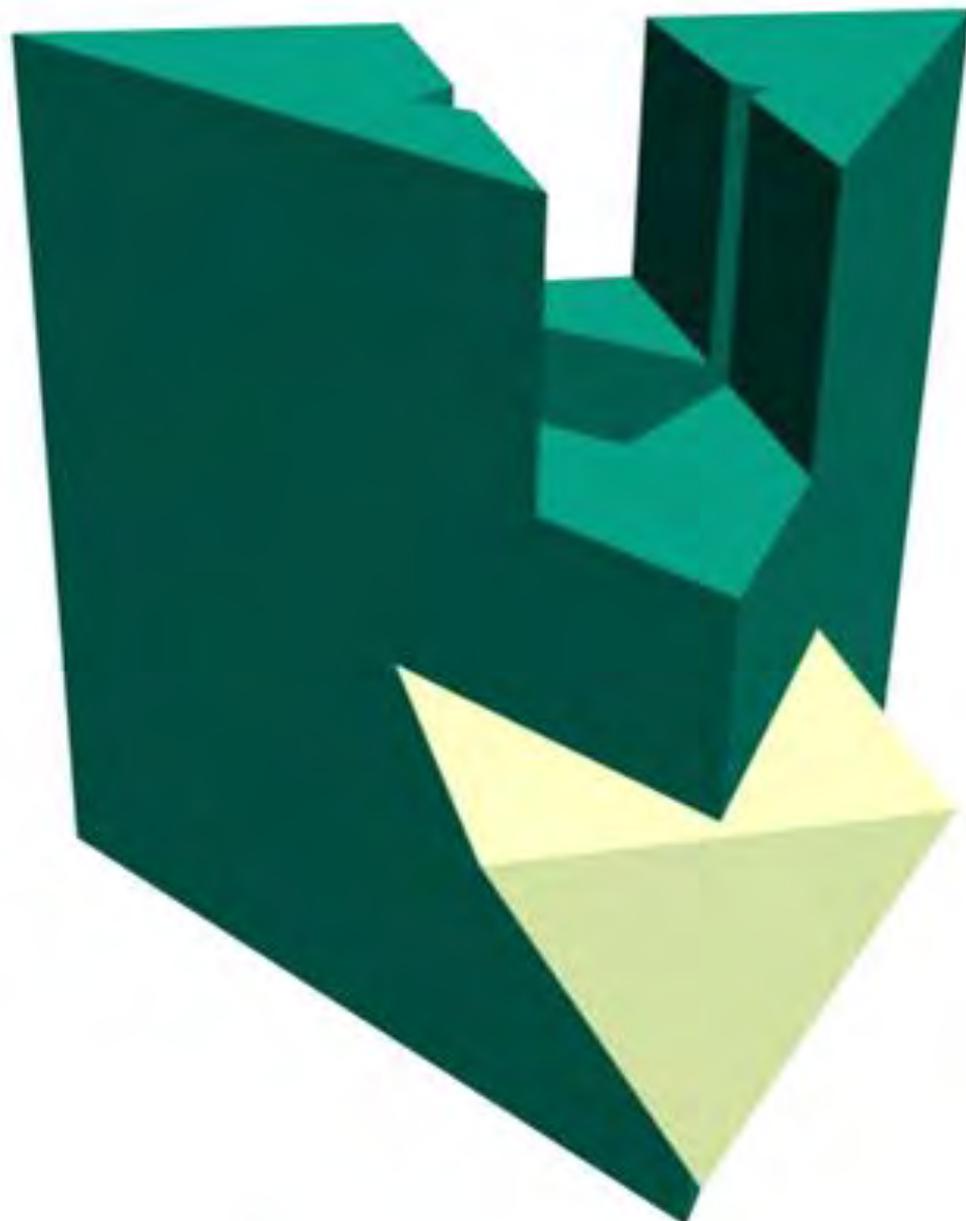
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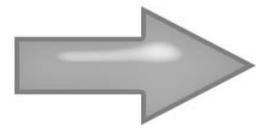
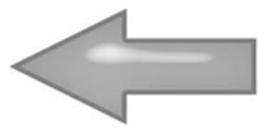


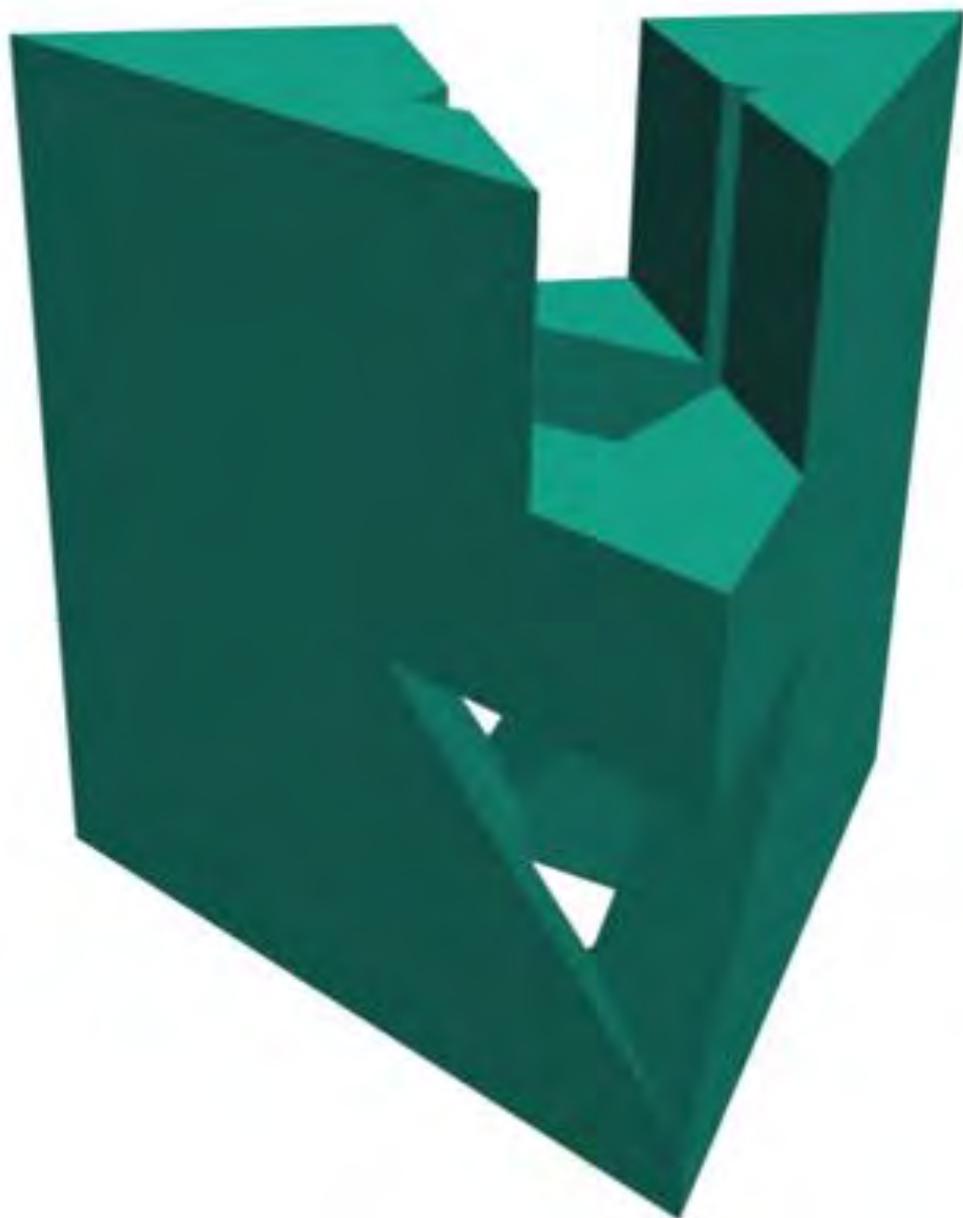
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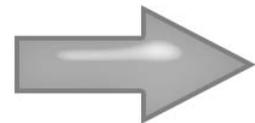
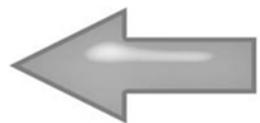


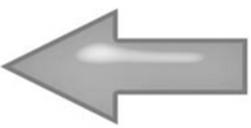
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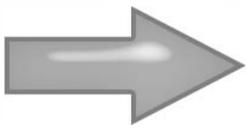


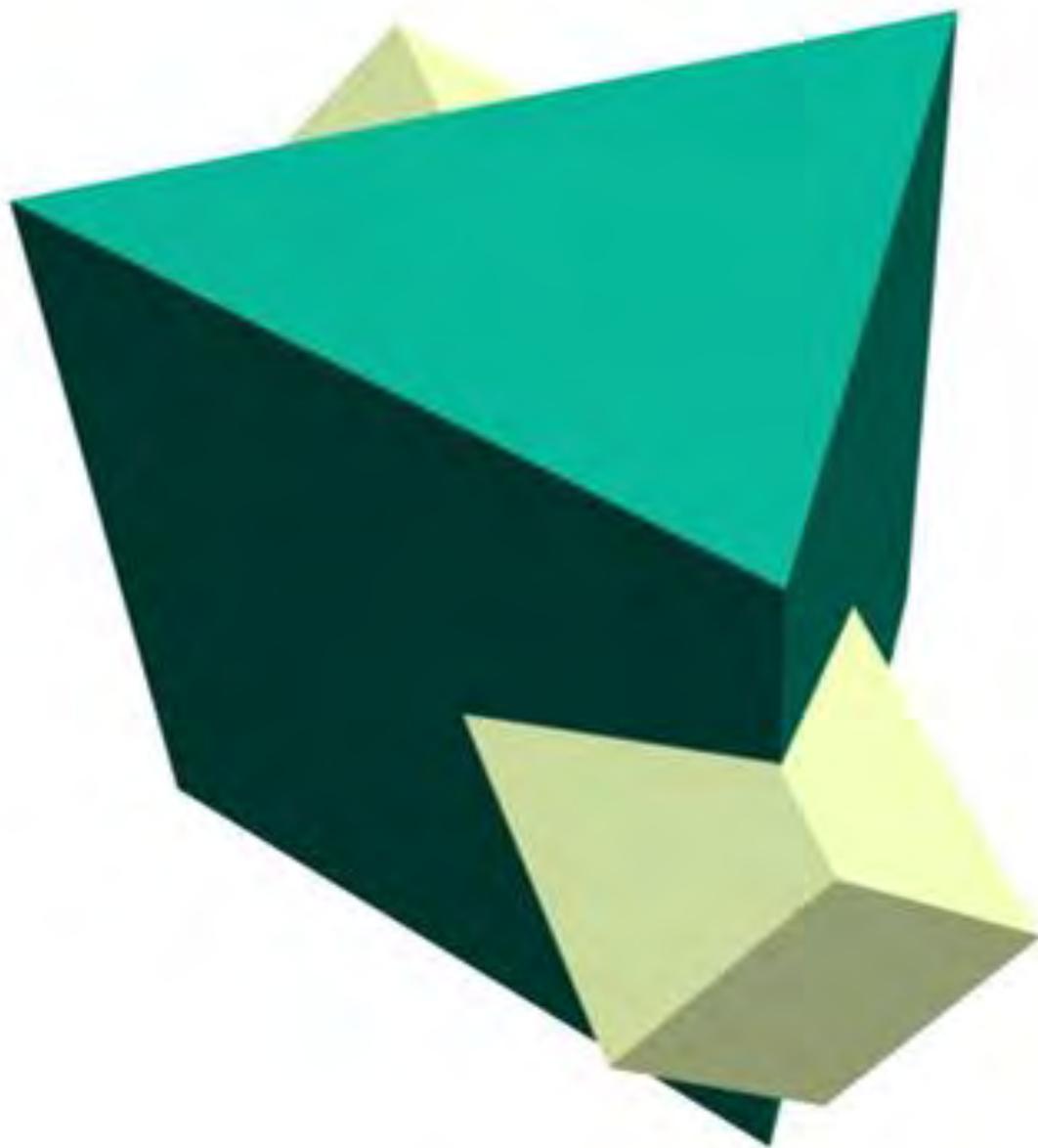
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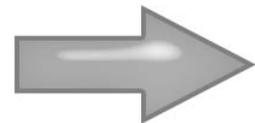
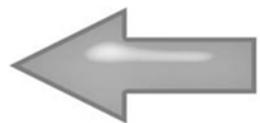


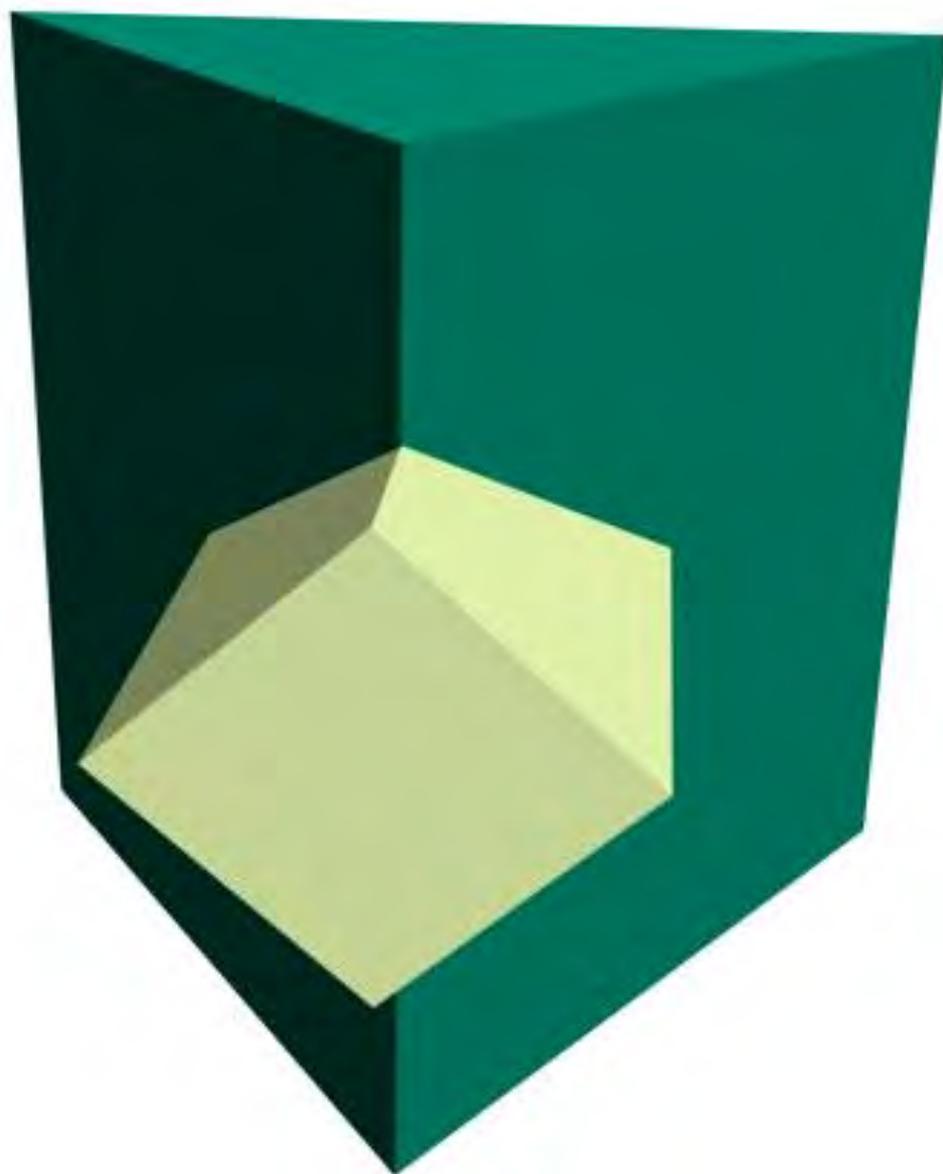
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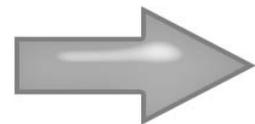
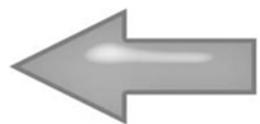


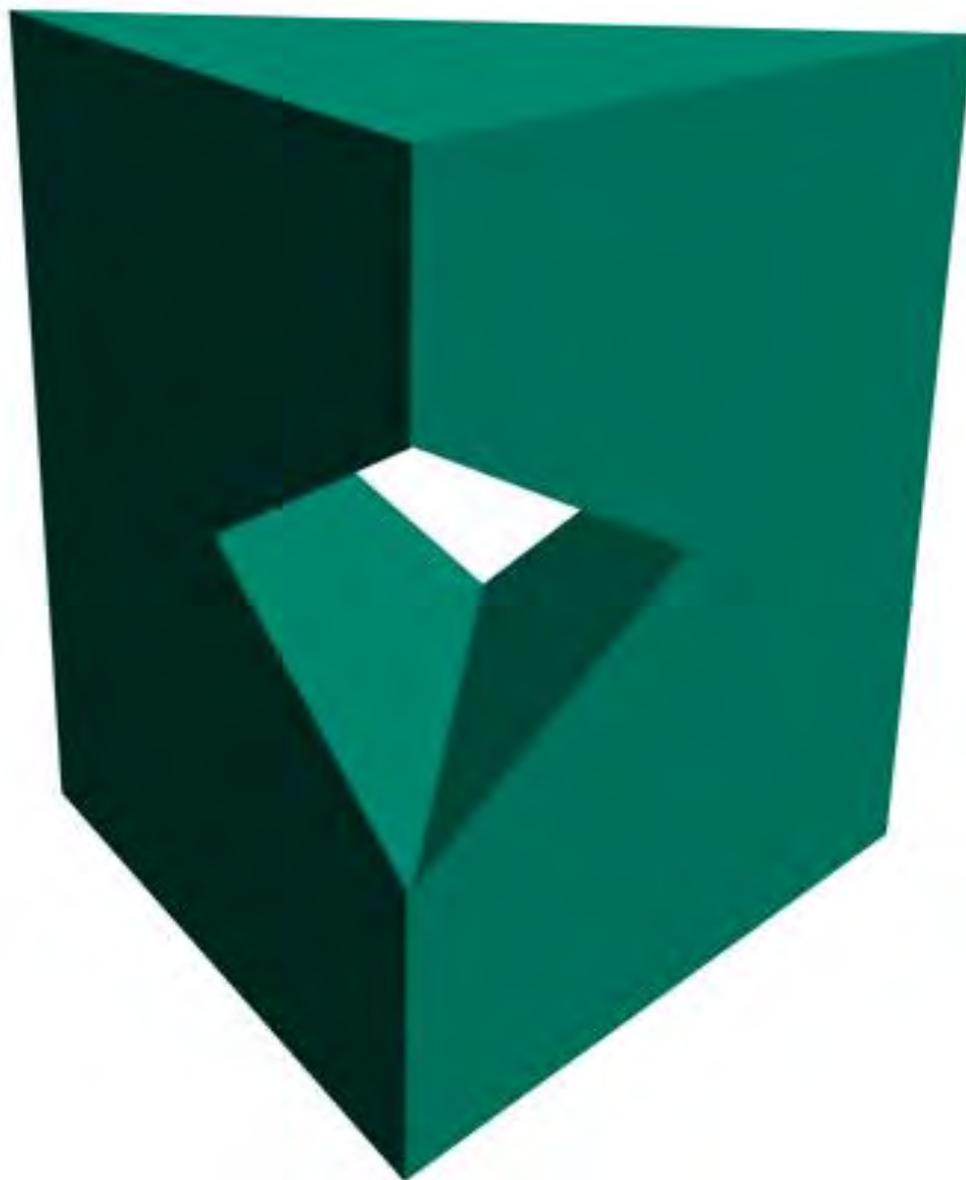
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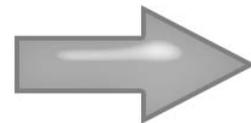
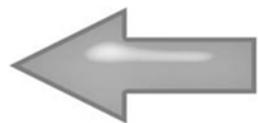


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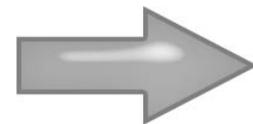
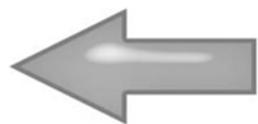


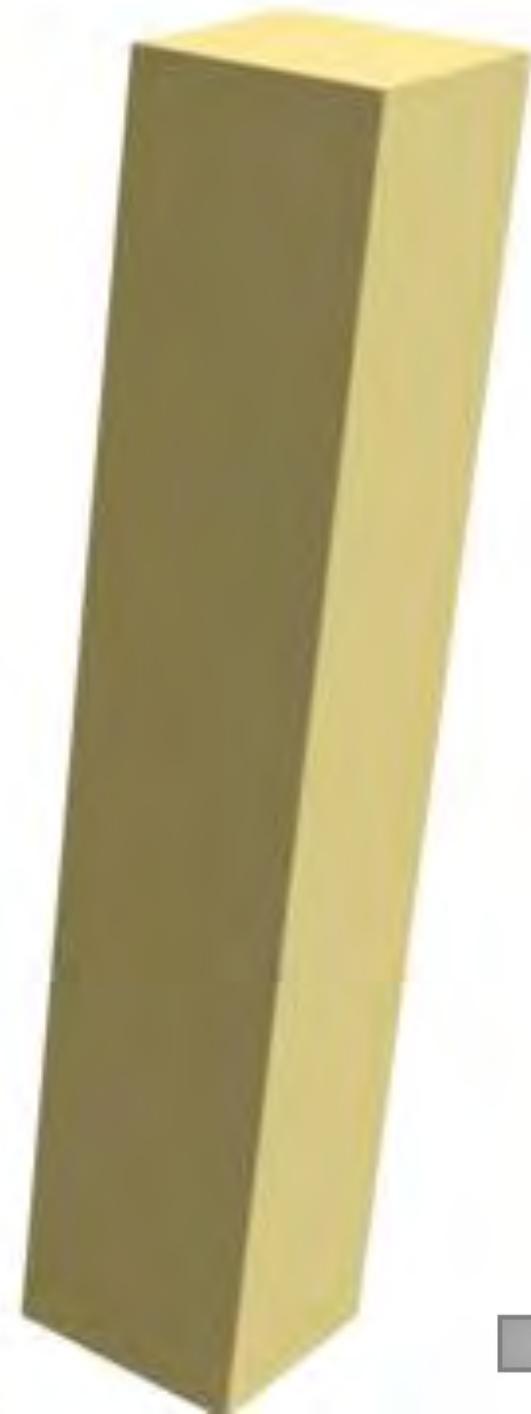
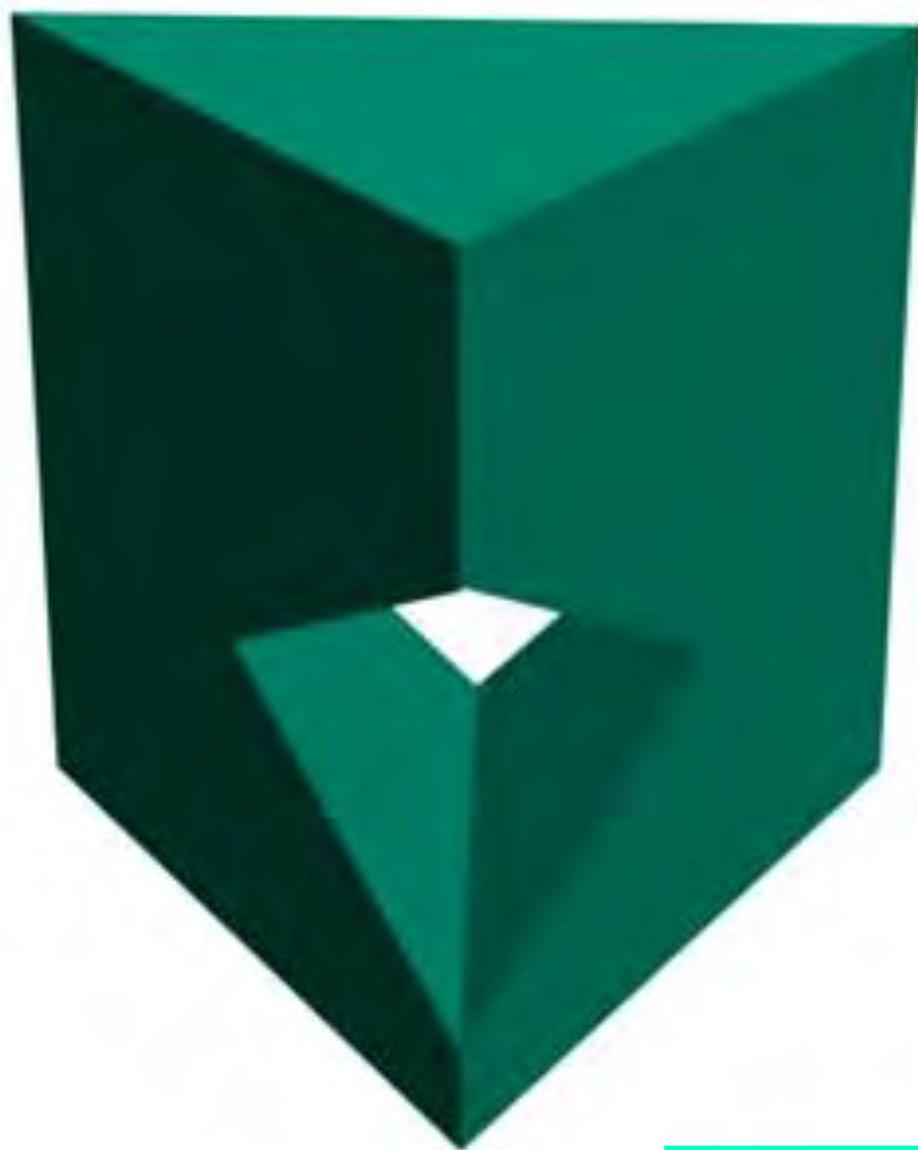
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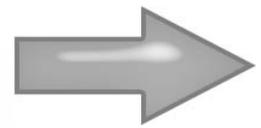
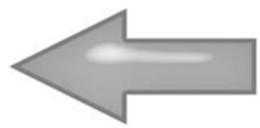


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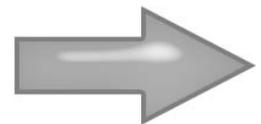
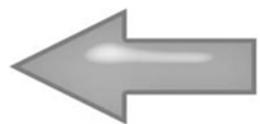




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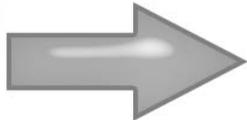
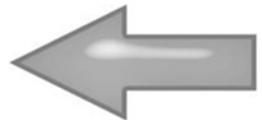


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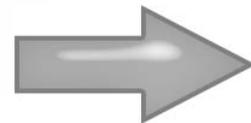
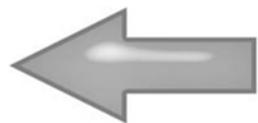


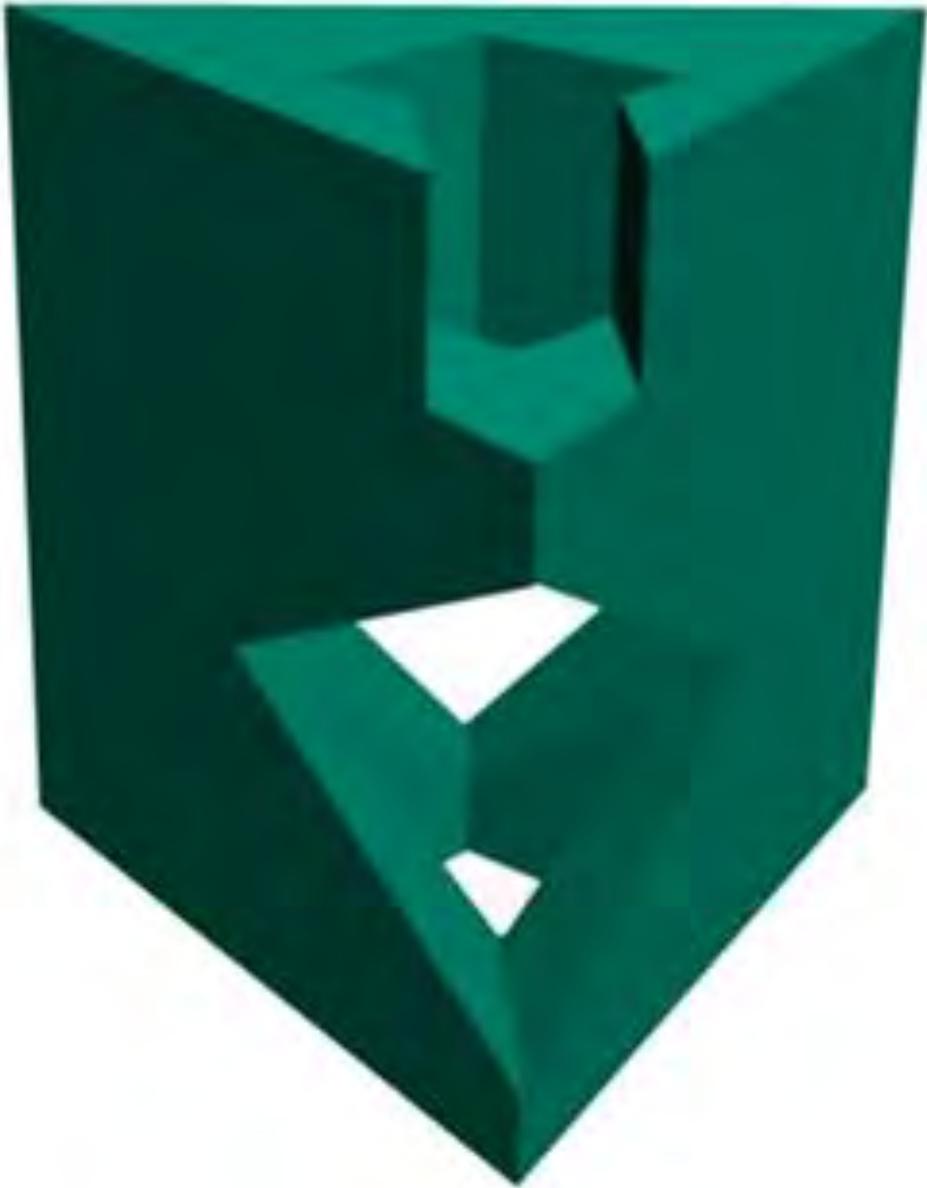
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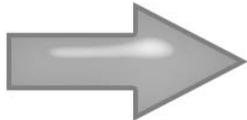
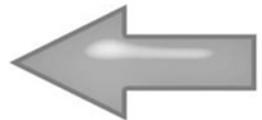


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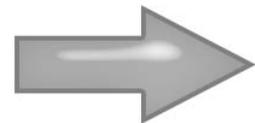
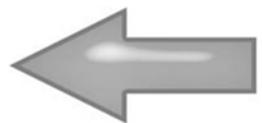


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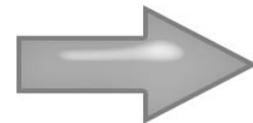
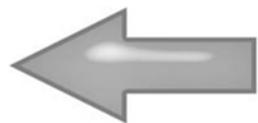
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Задача № 2. ПРЯМОЙ КРУГОВОЙ ЦИЛИНДР СО СКВОЗНЫМИ ОТВЕРСТИЯМИ

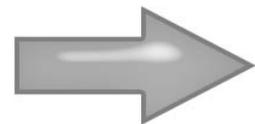
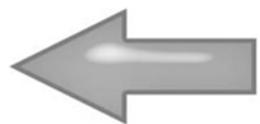


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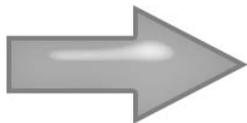
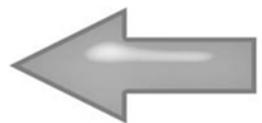


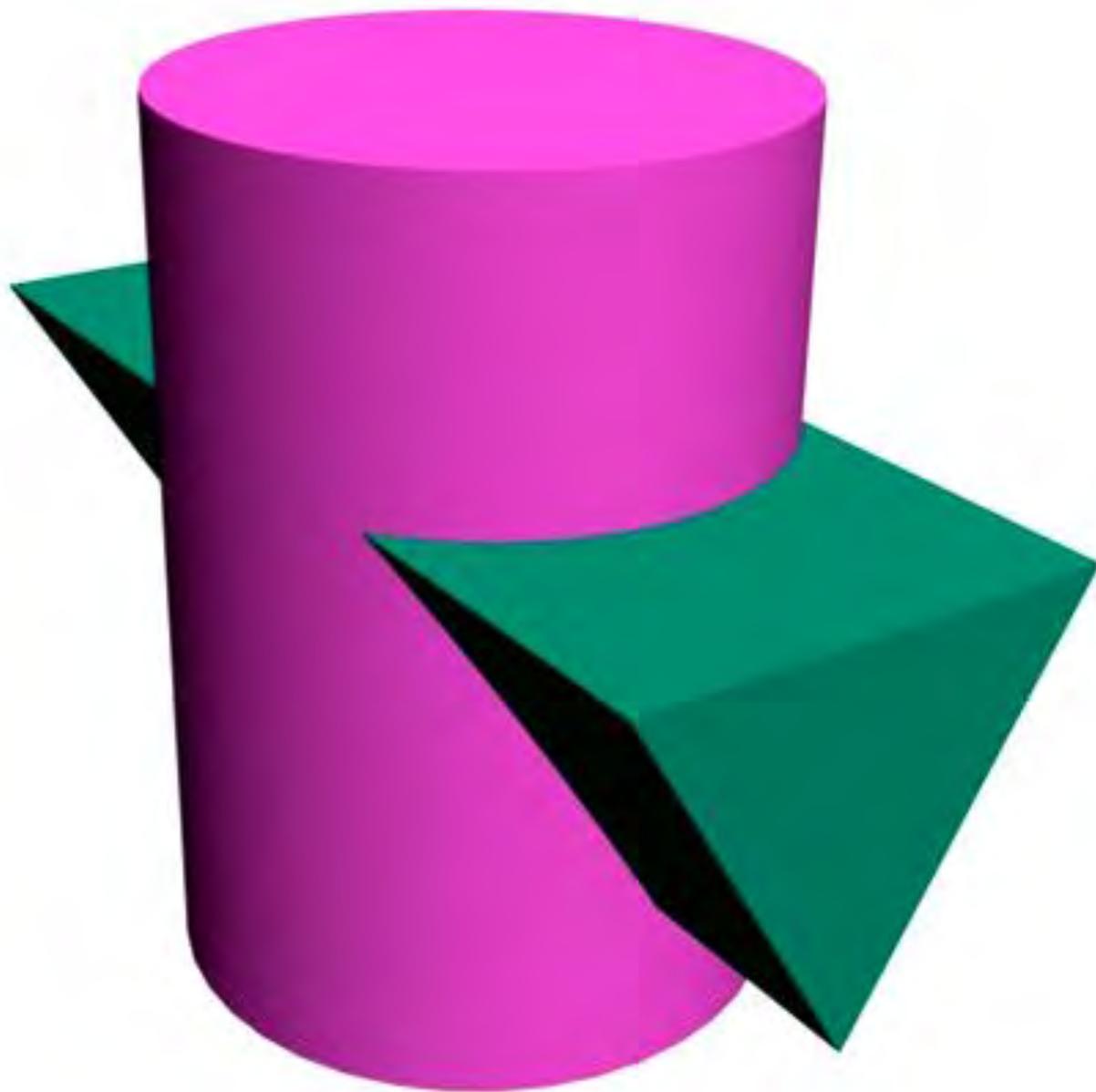
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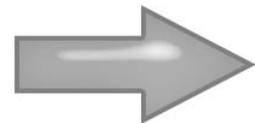
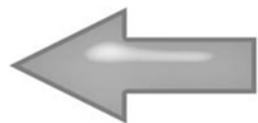


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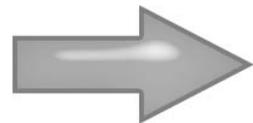
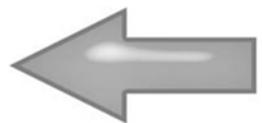


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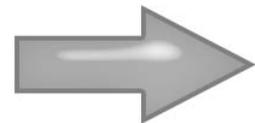
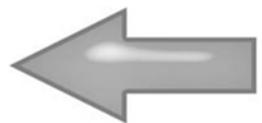


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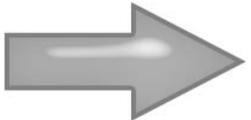


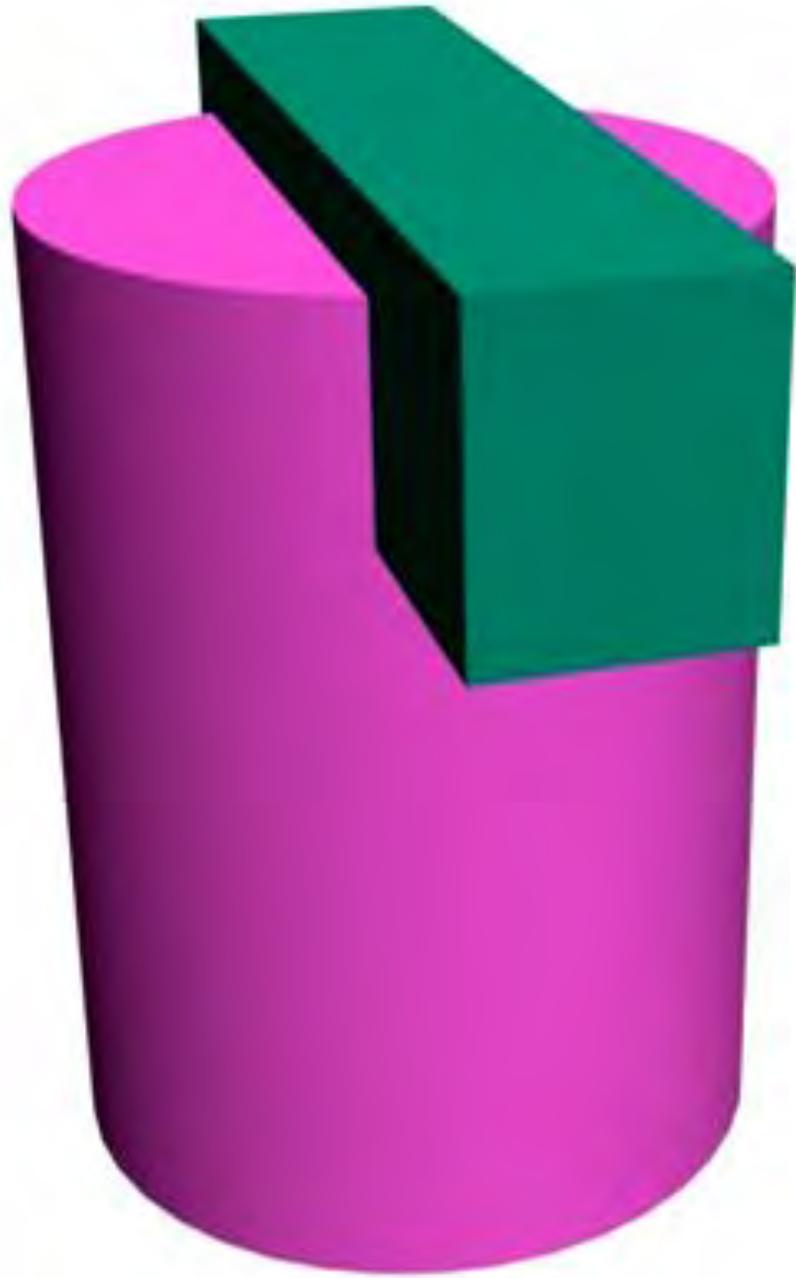
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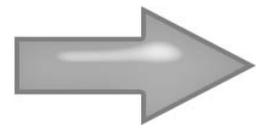
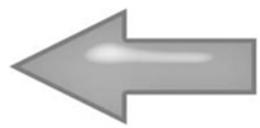


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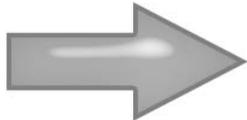
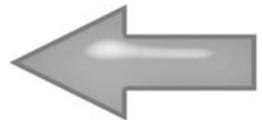


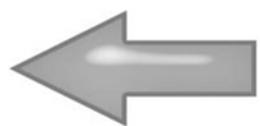
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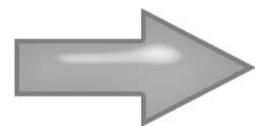


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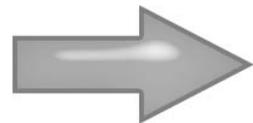
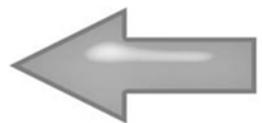


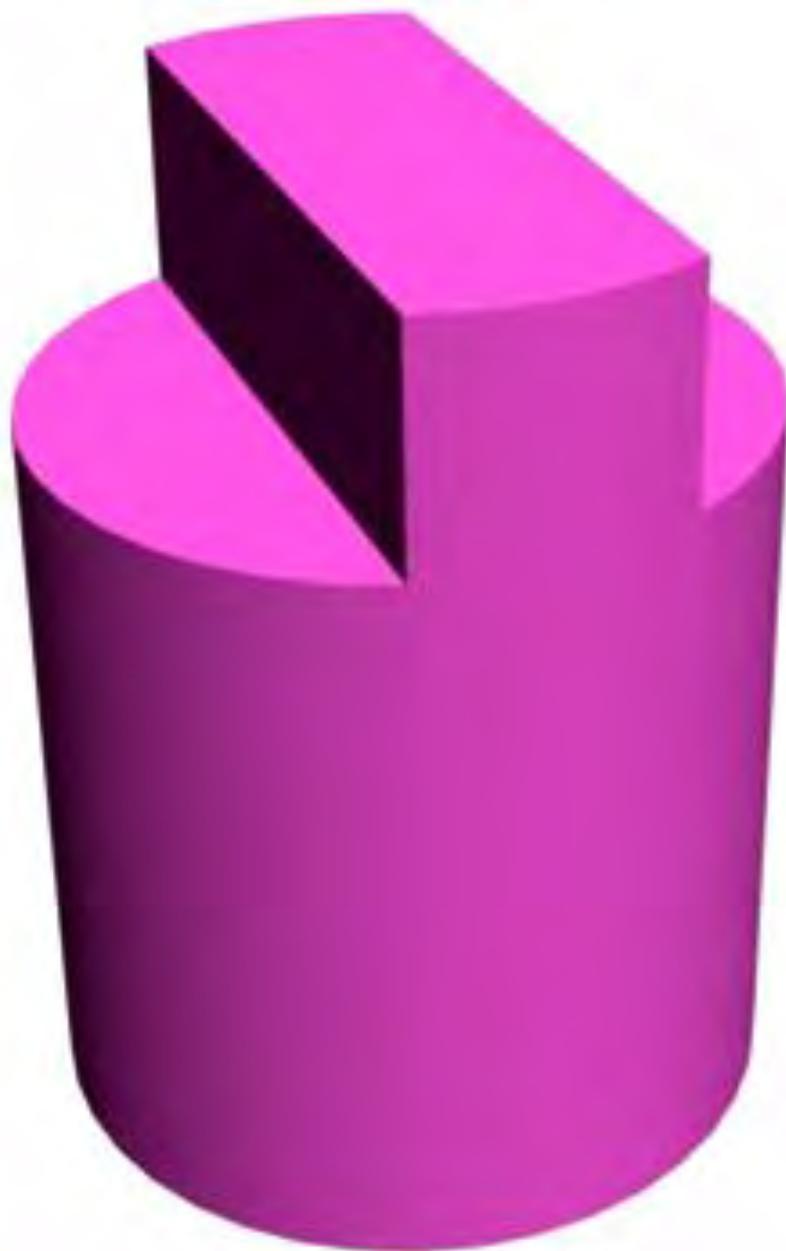
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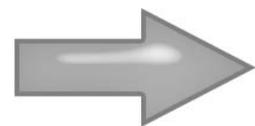
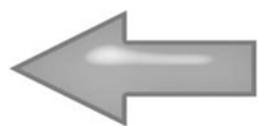


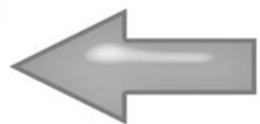
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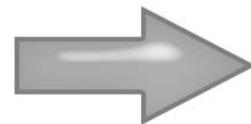


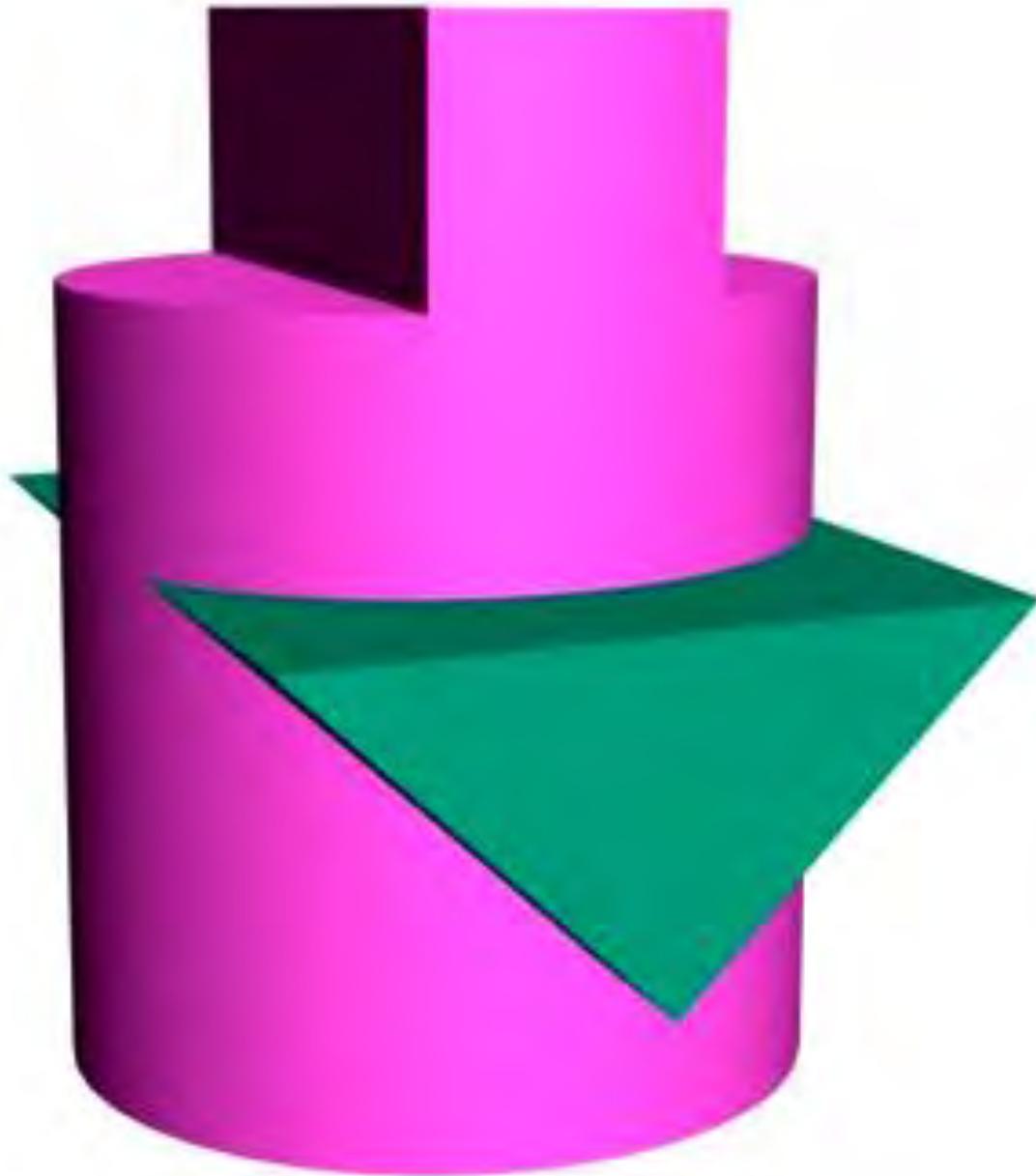
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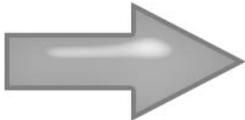
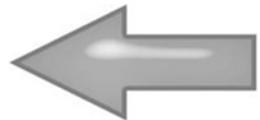


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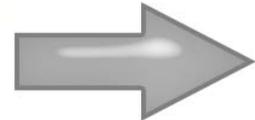
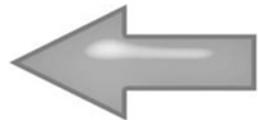


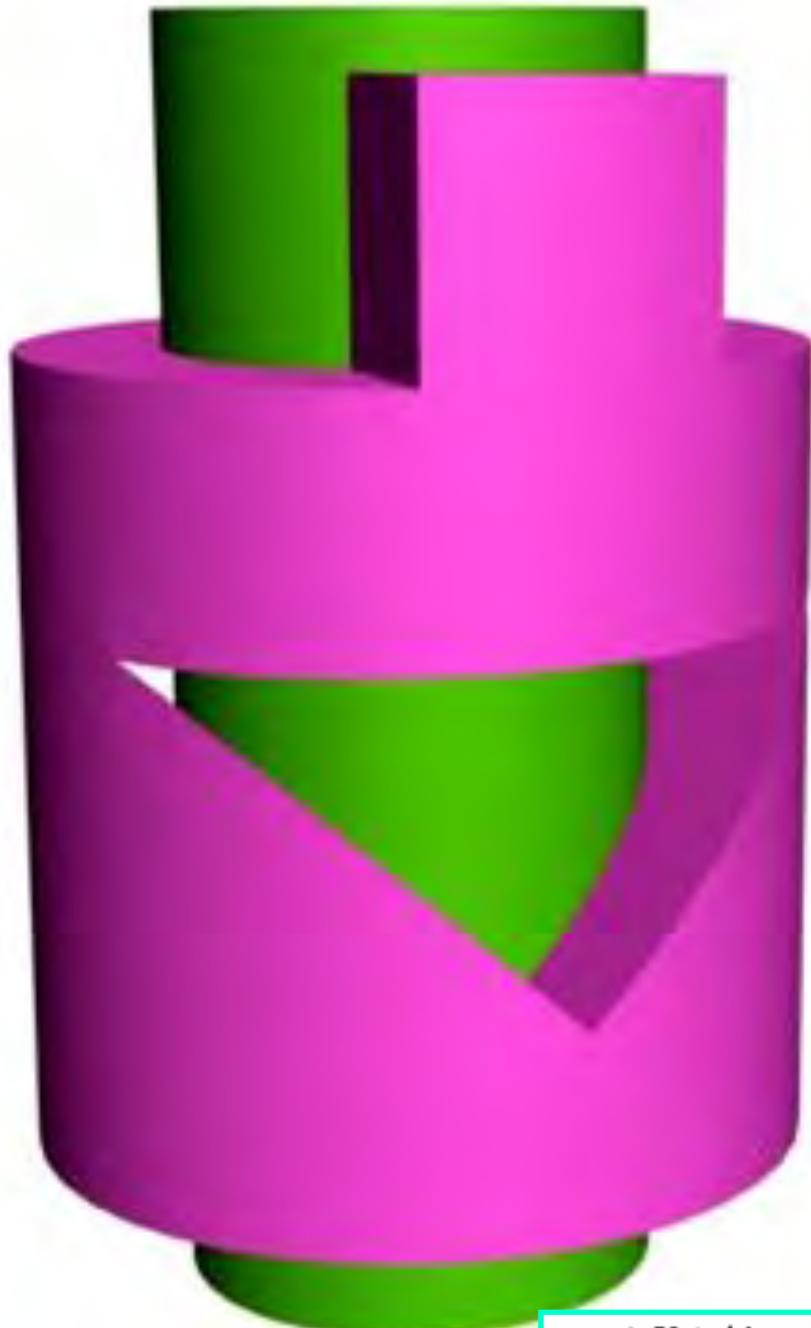


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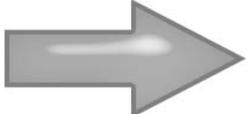
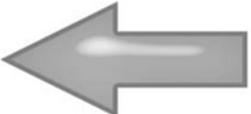


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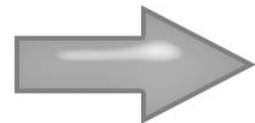
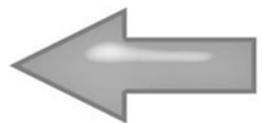


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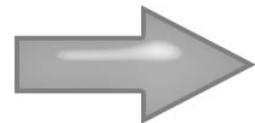


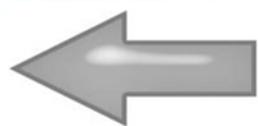
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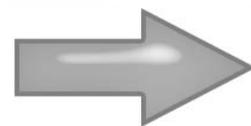


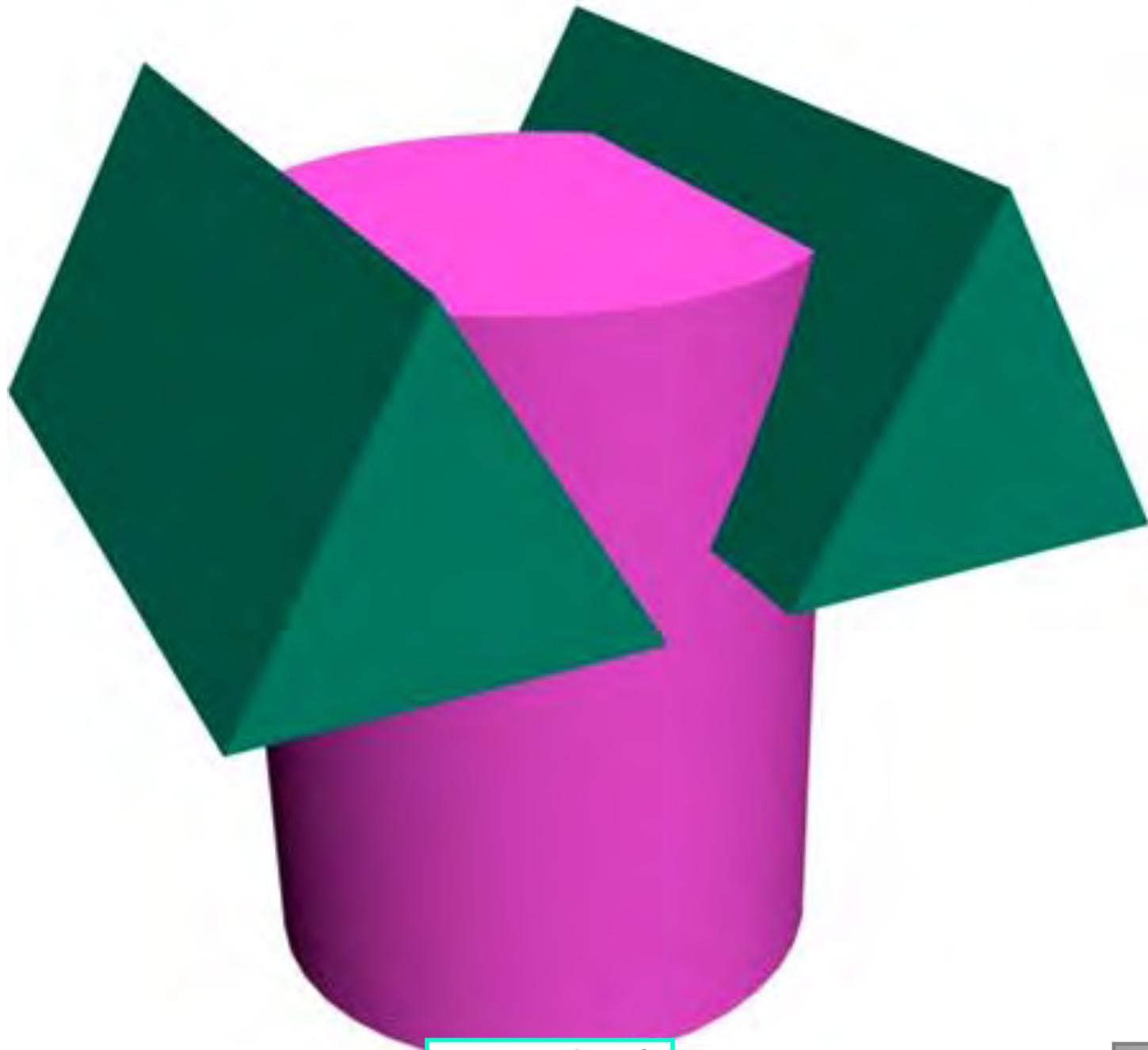
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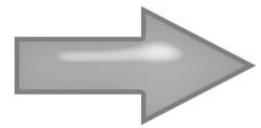
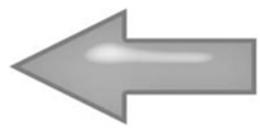
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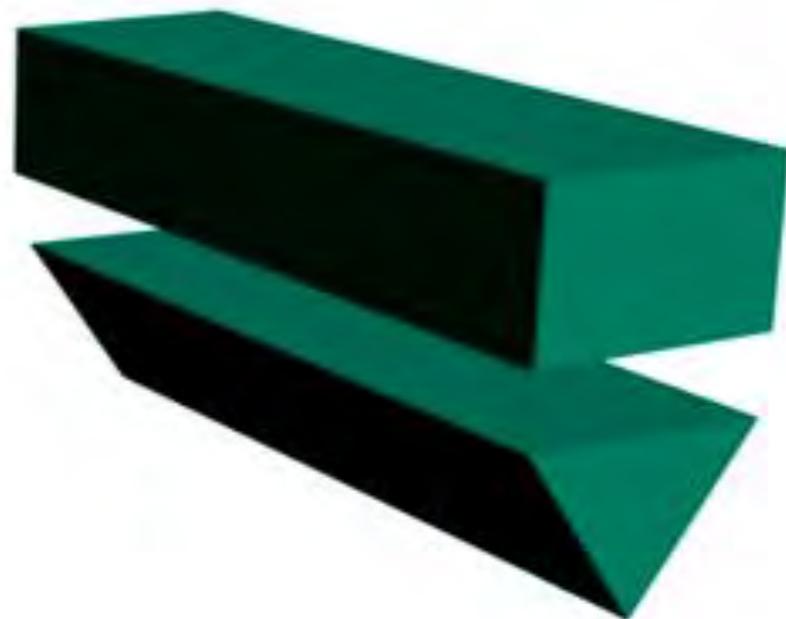


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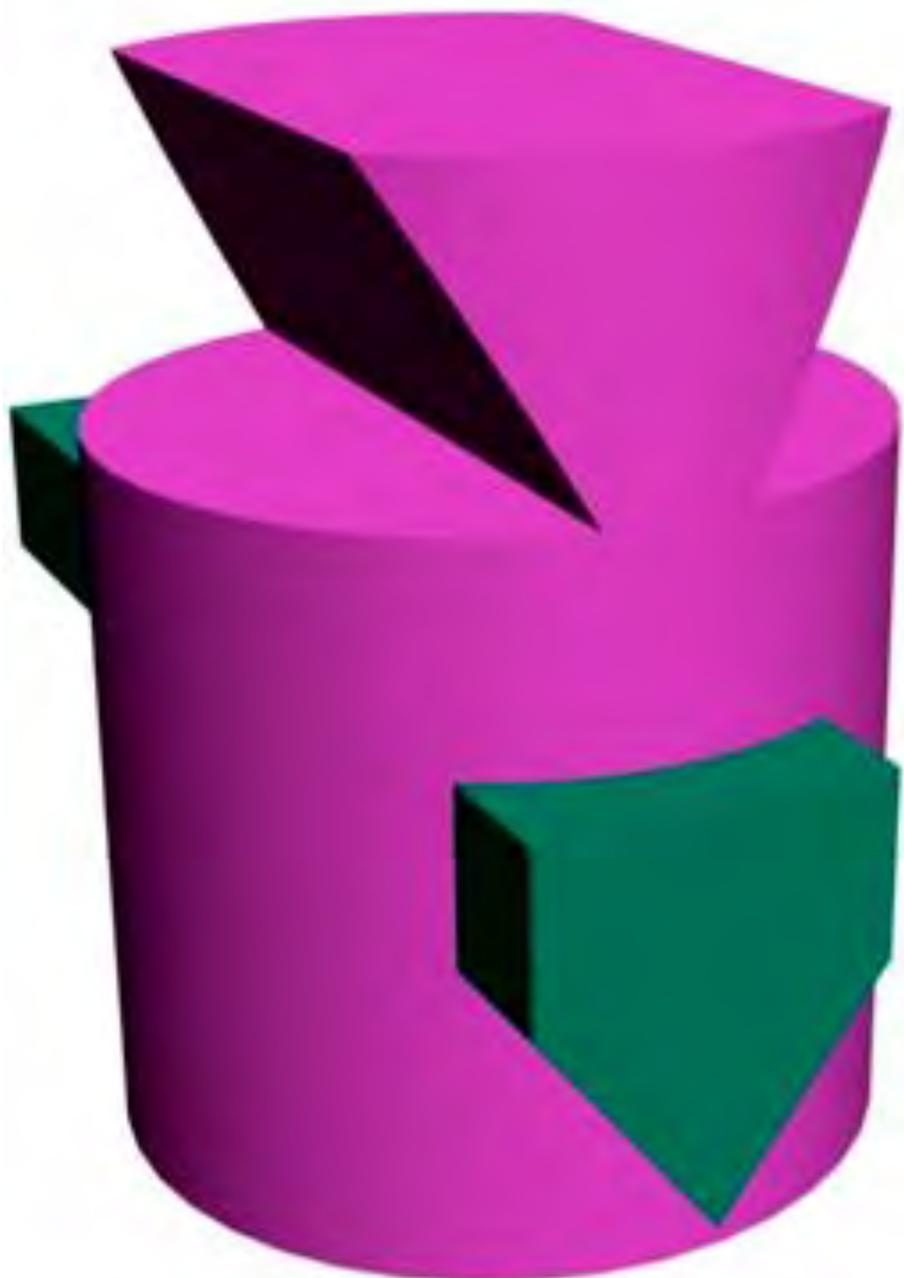


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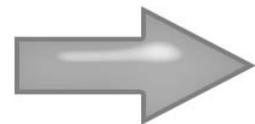
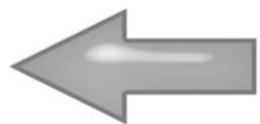


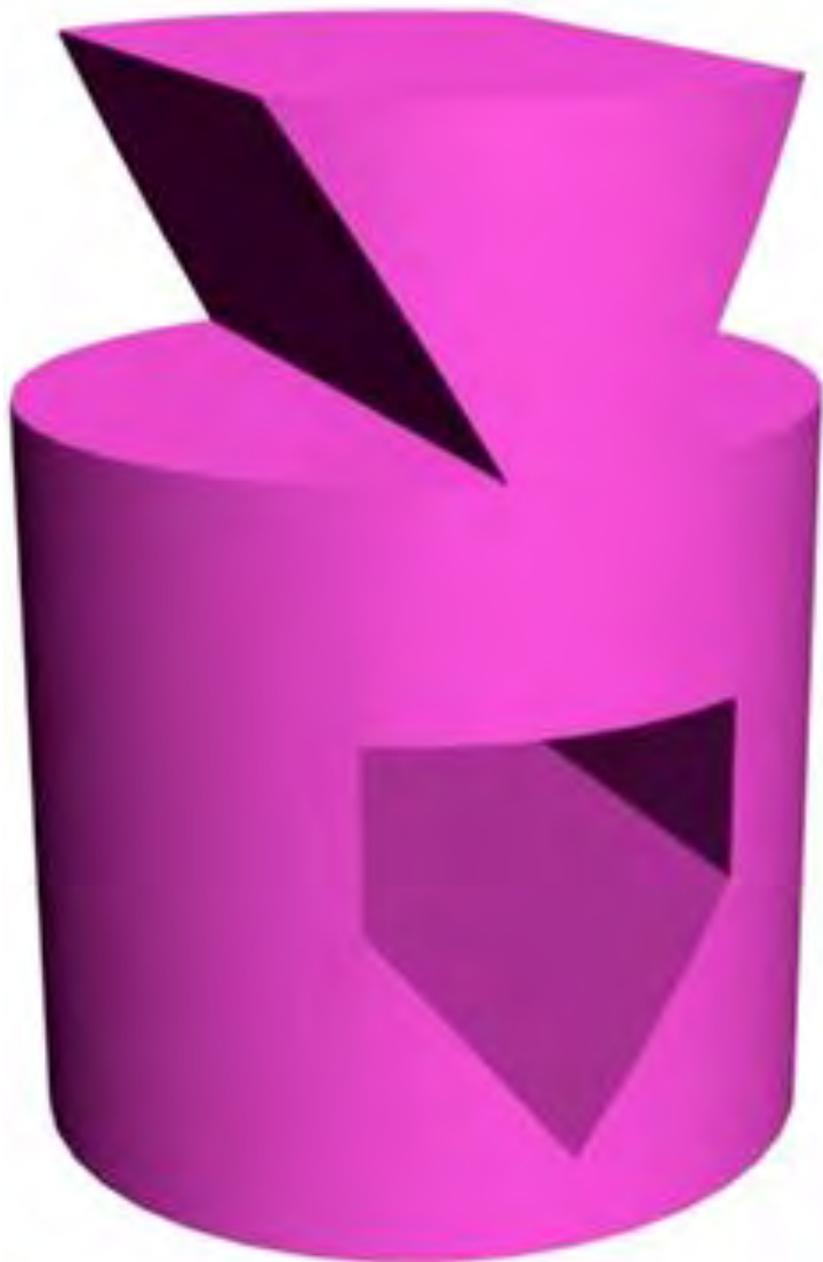


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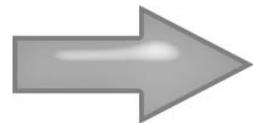
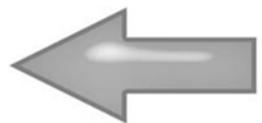


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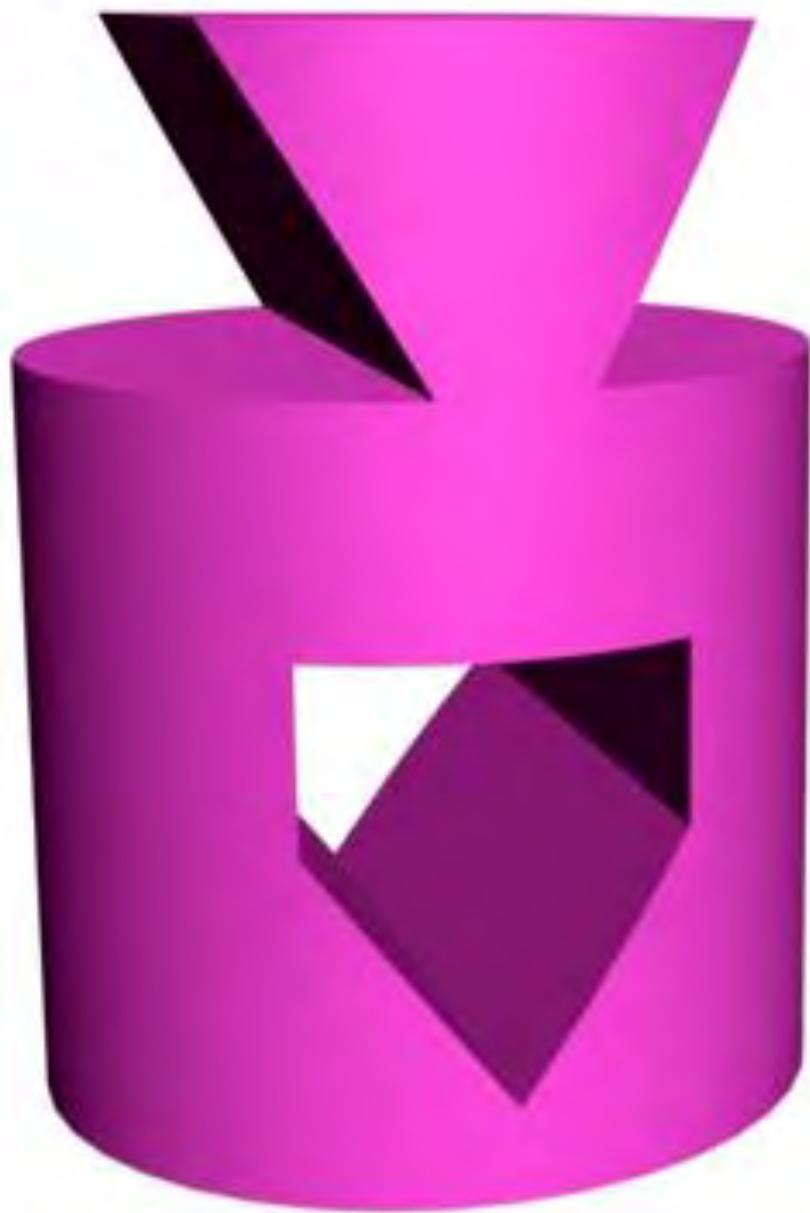


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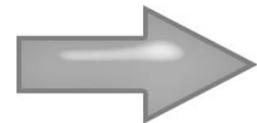
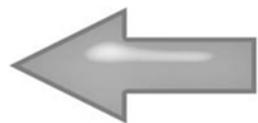


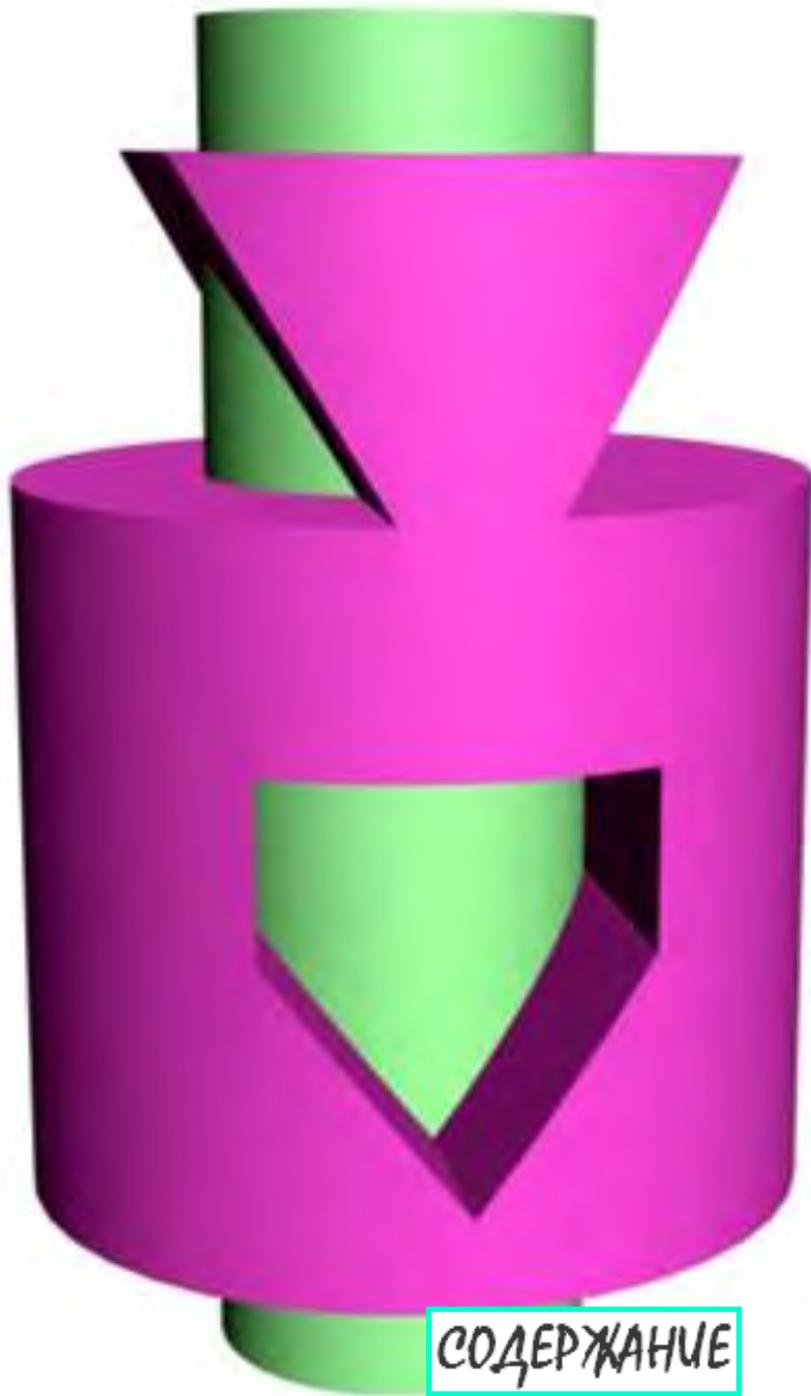


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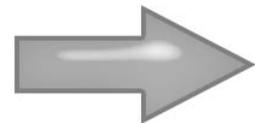
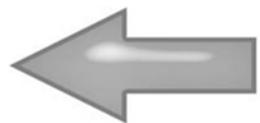


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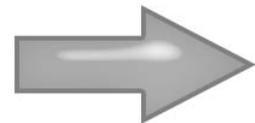
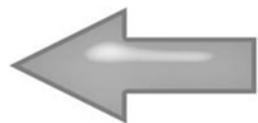


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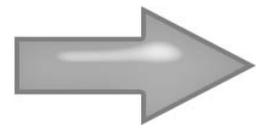
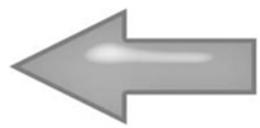




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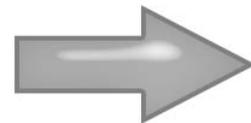
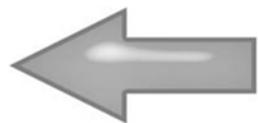


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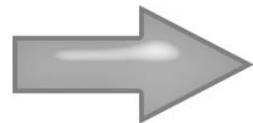
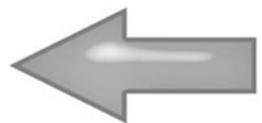




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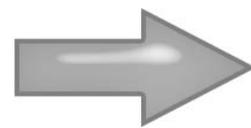
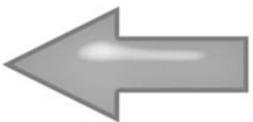


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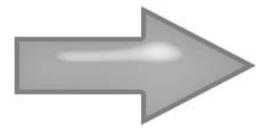
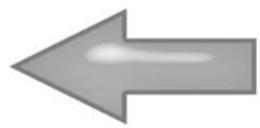


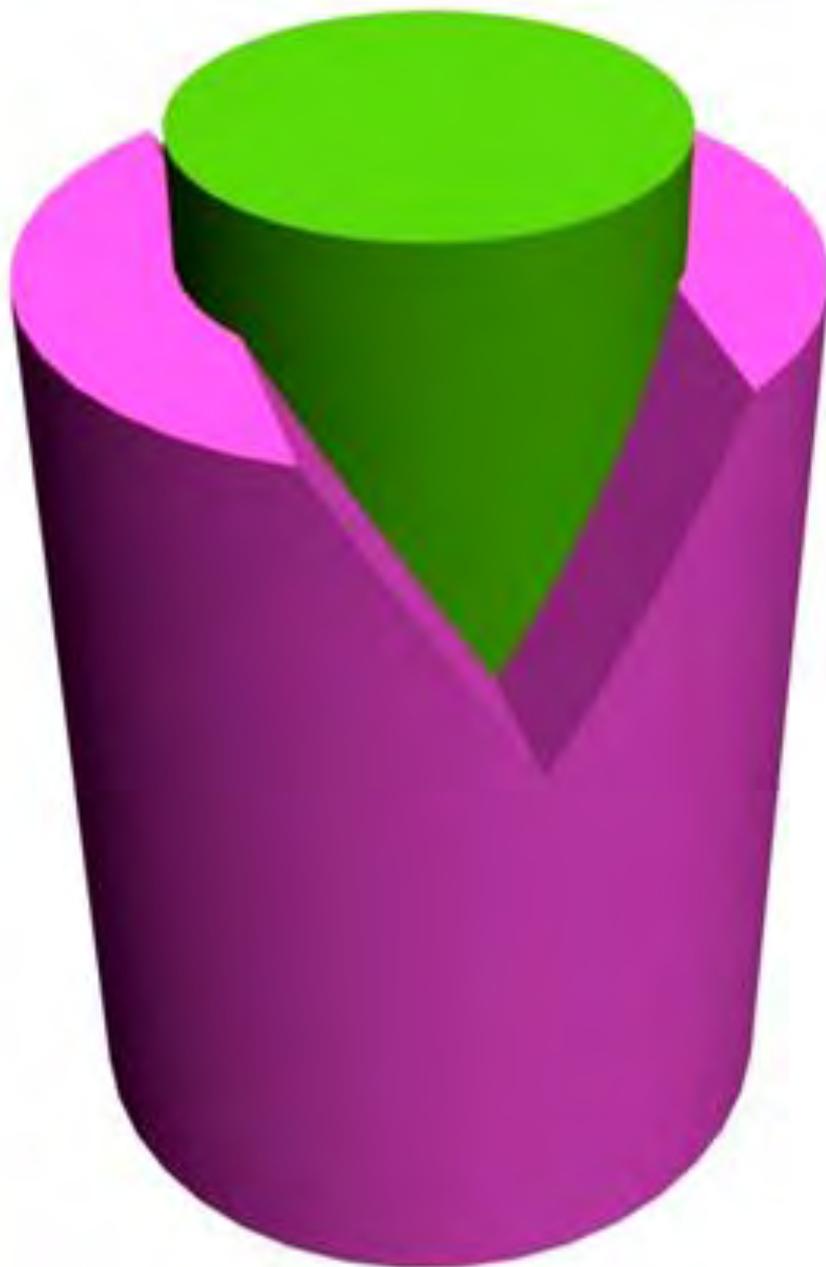
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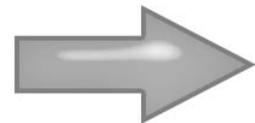


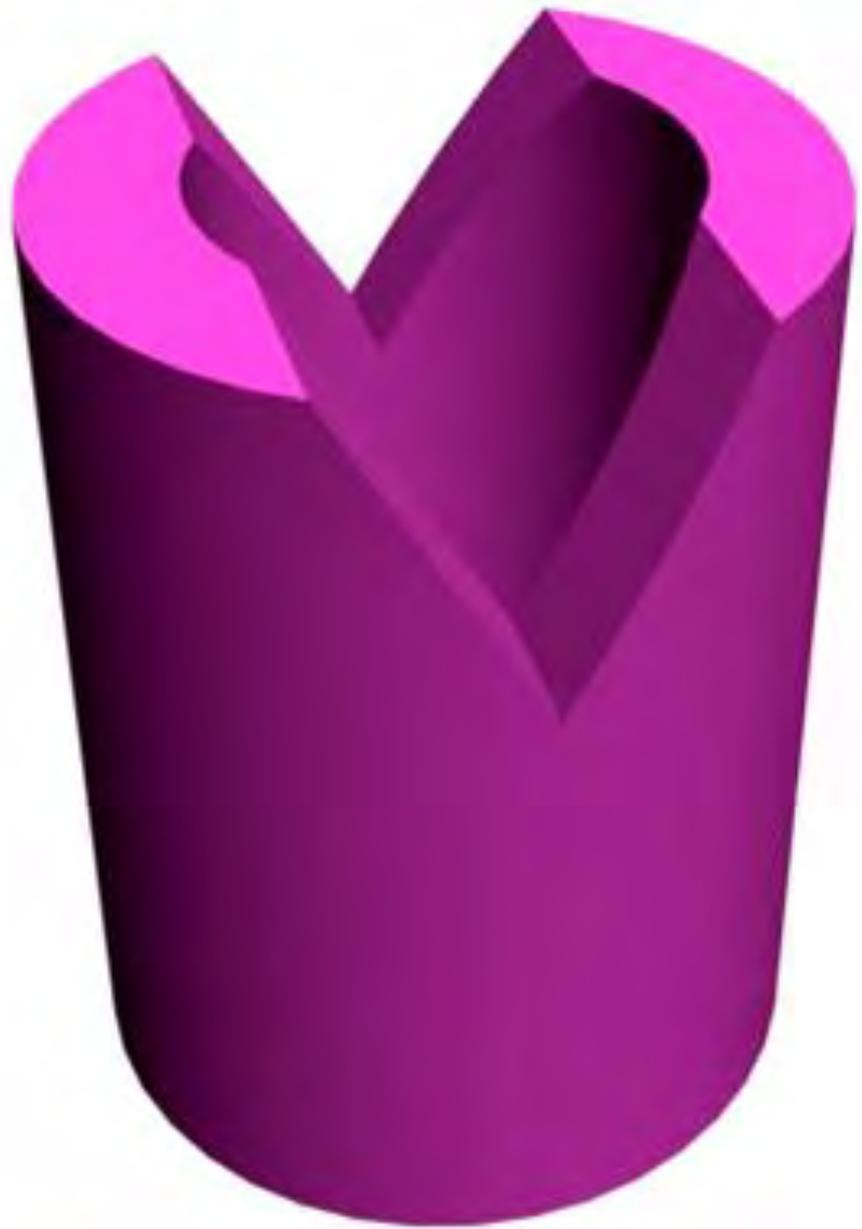
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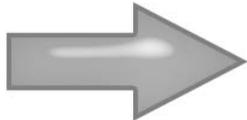
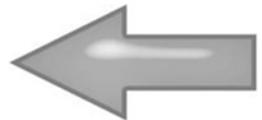


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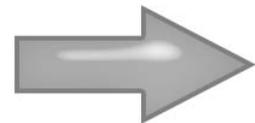


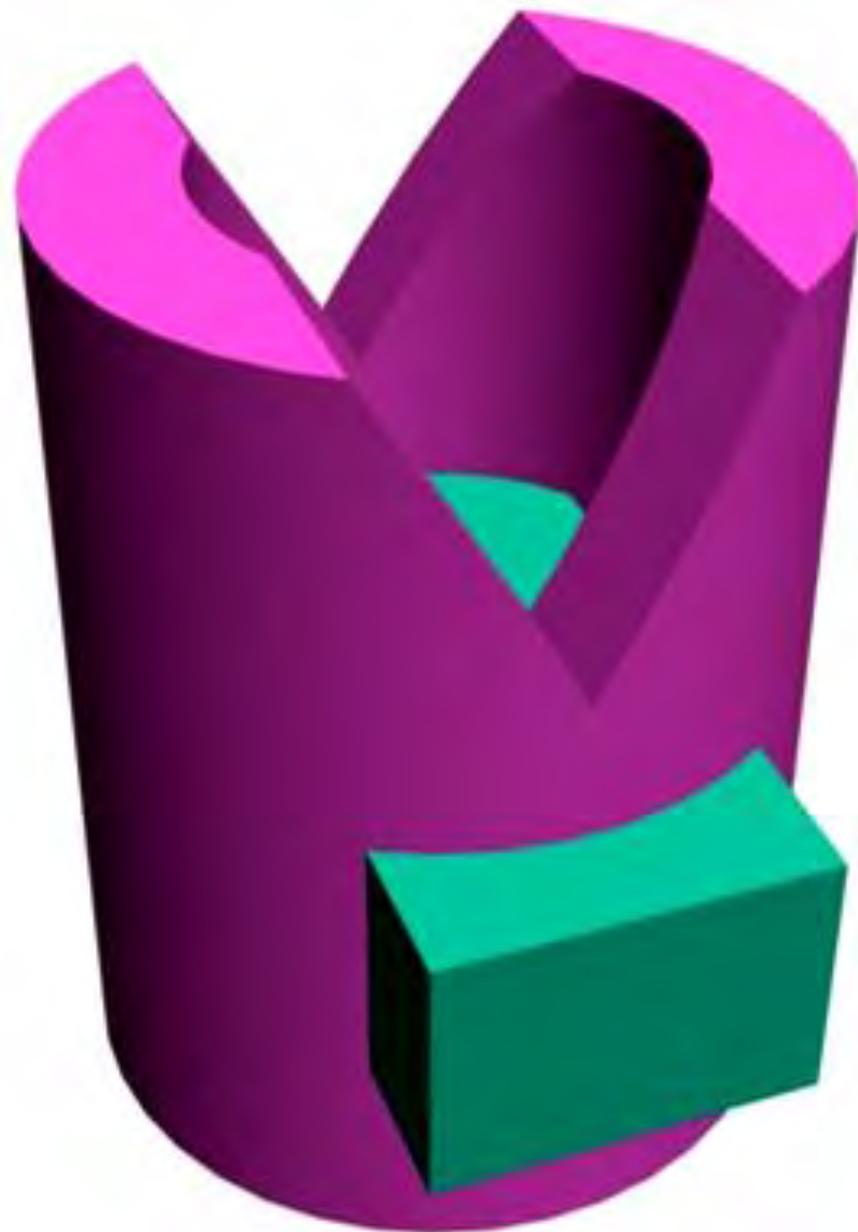
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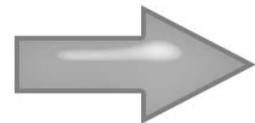
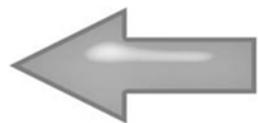


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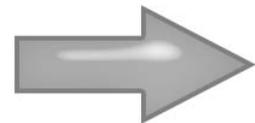
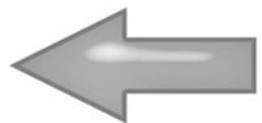


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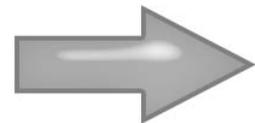
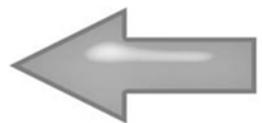


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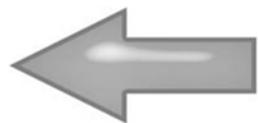




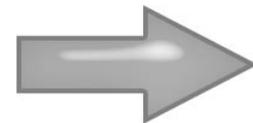
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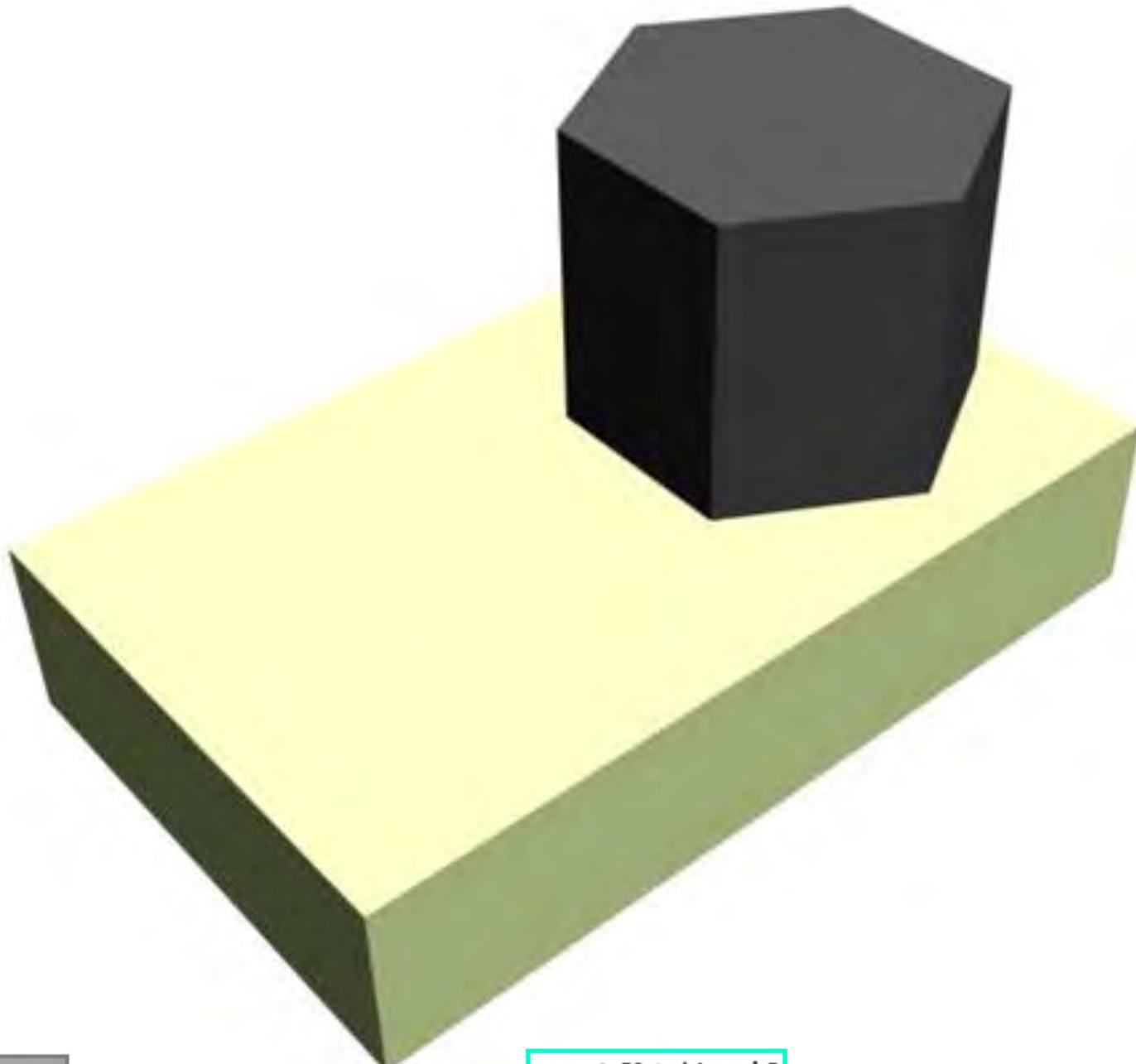


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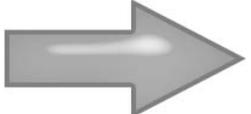
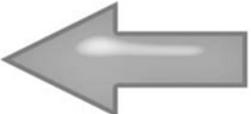


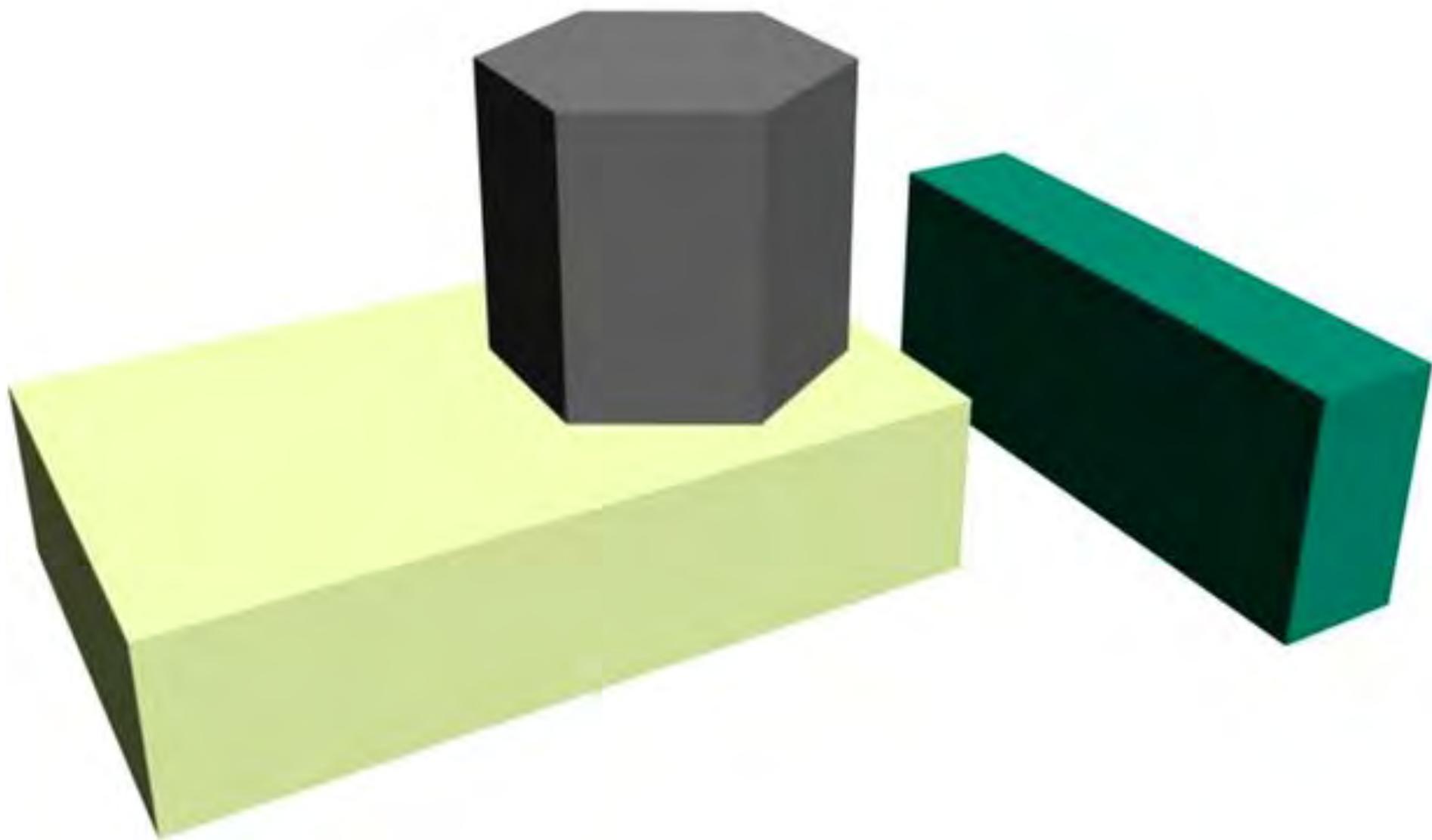
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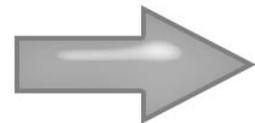


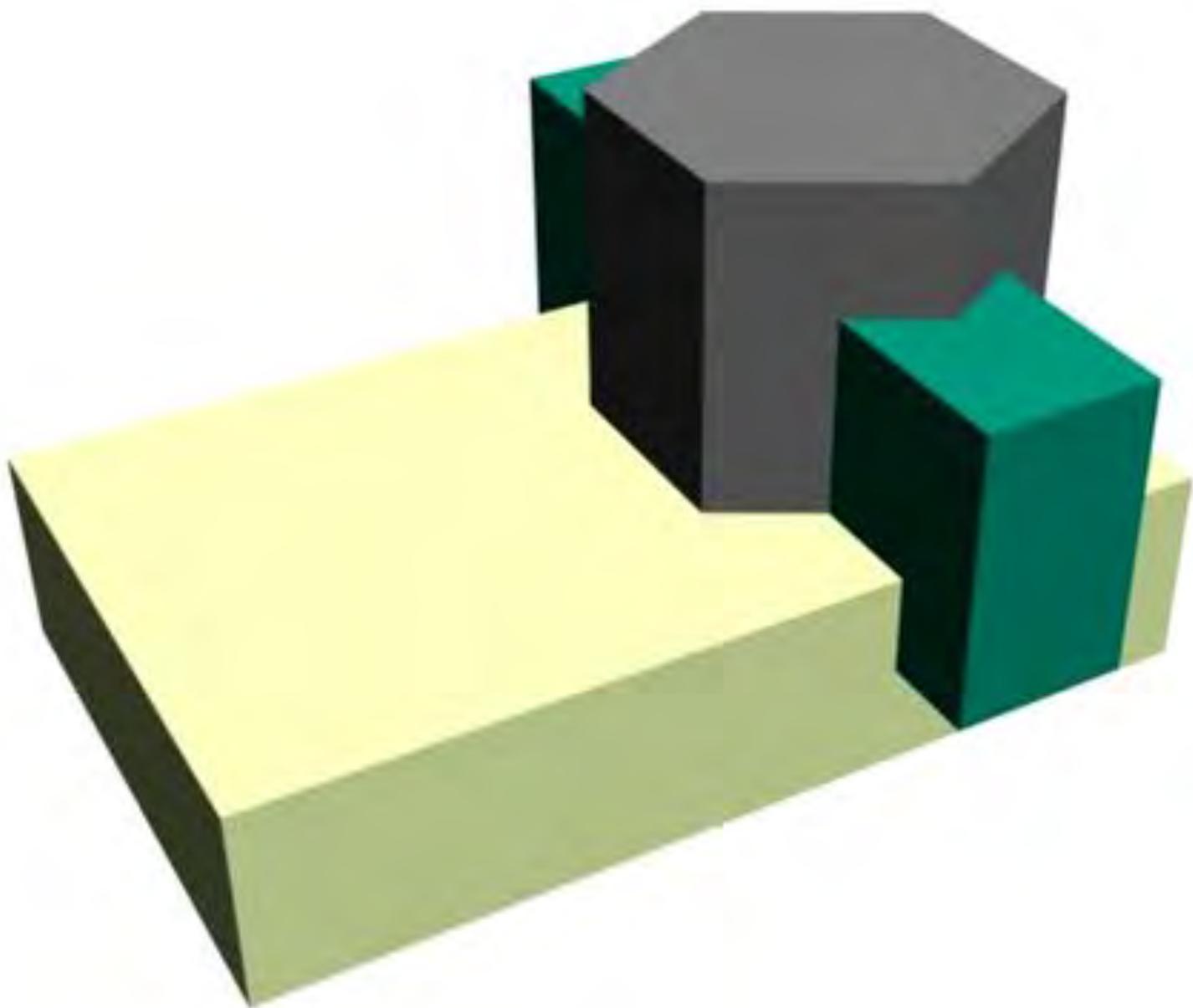
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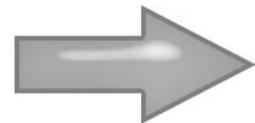


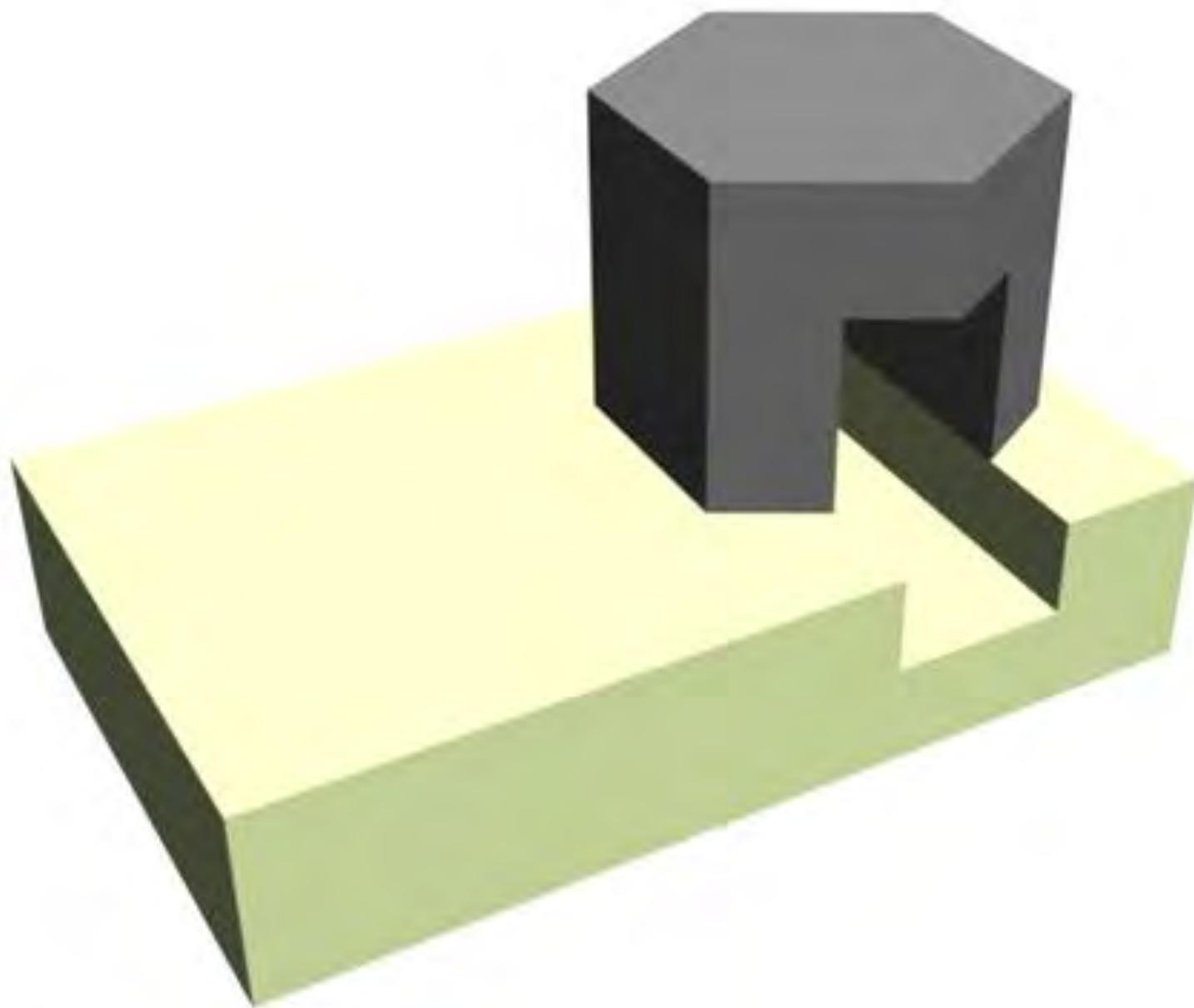
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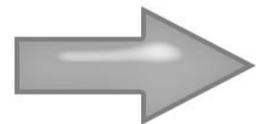
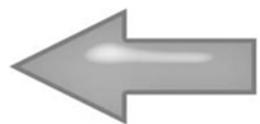


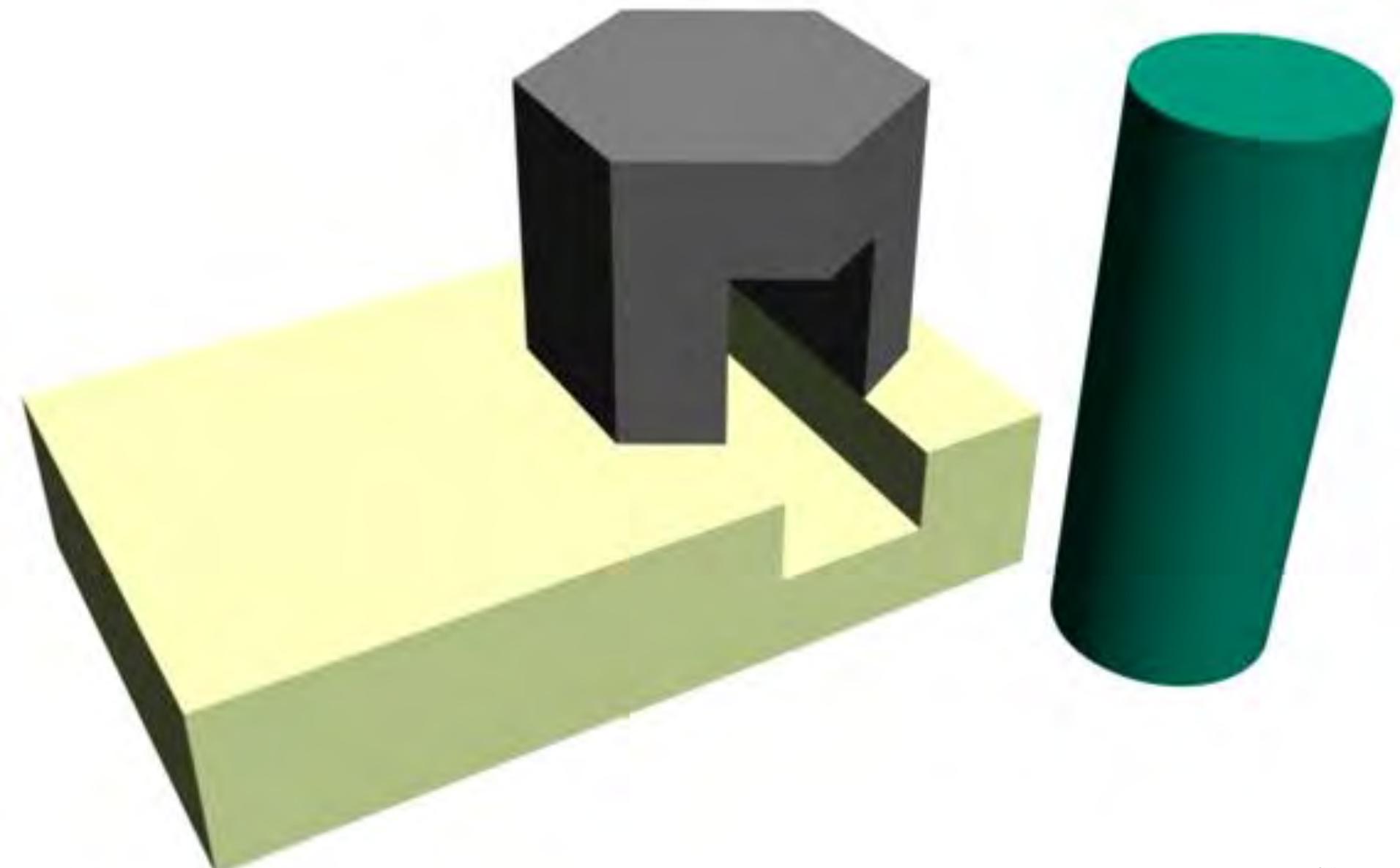
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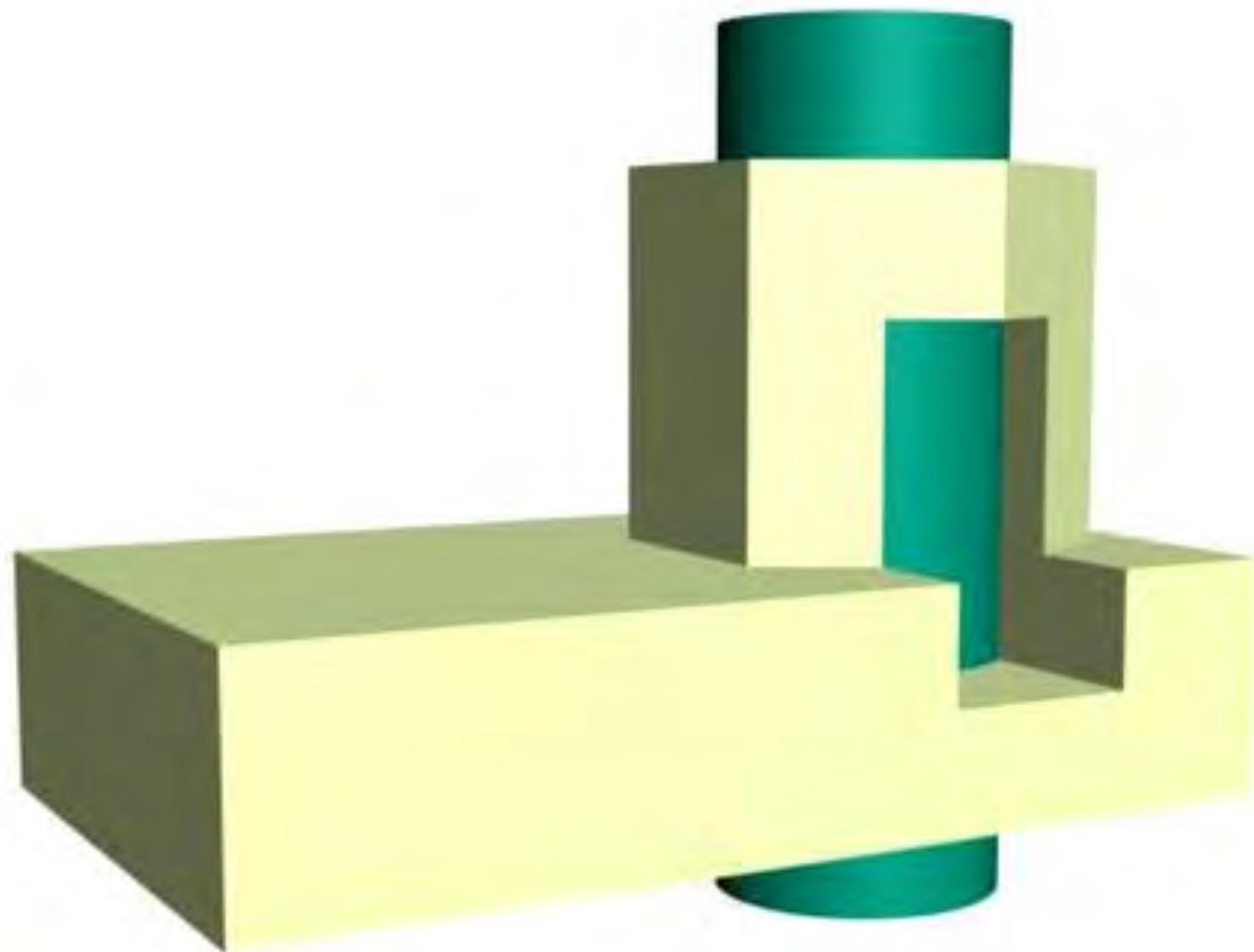


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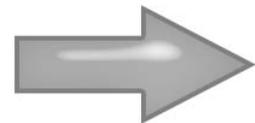
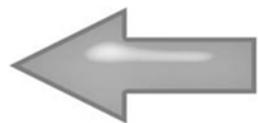


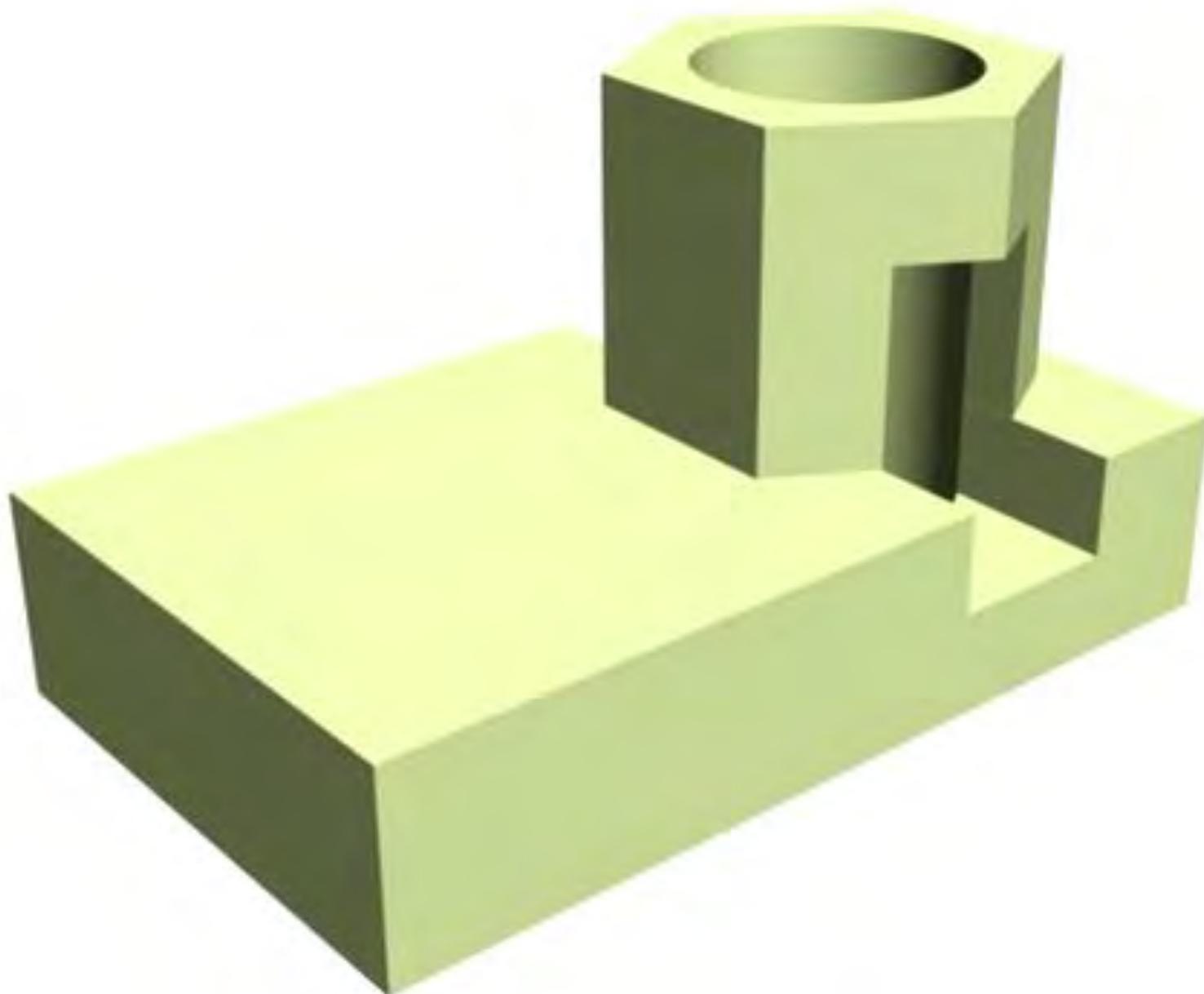


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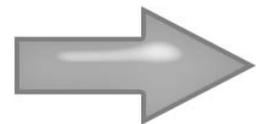
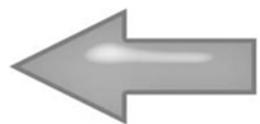


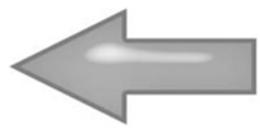
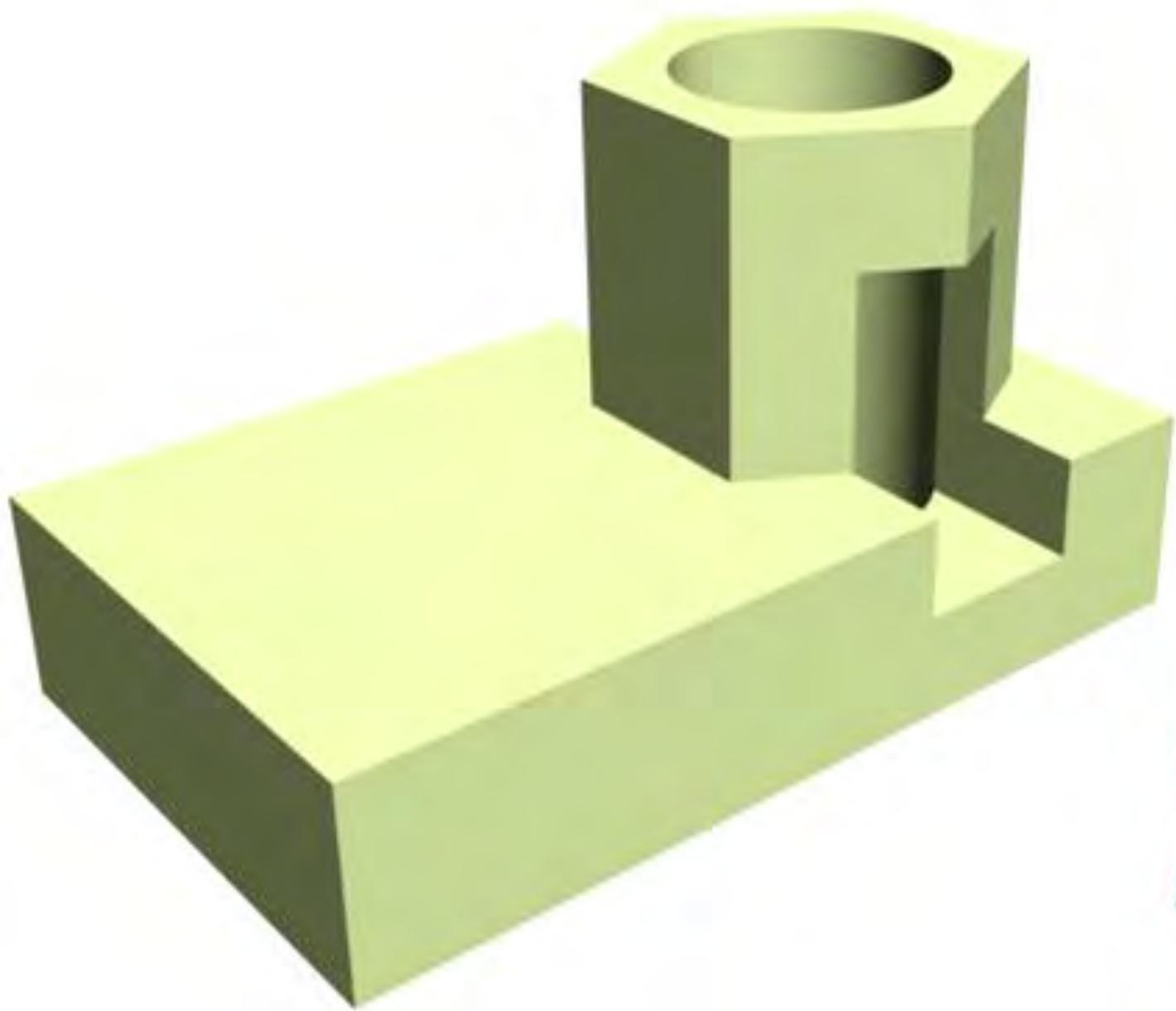
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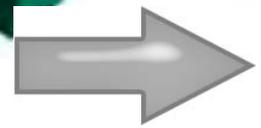


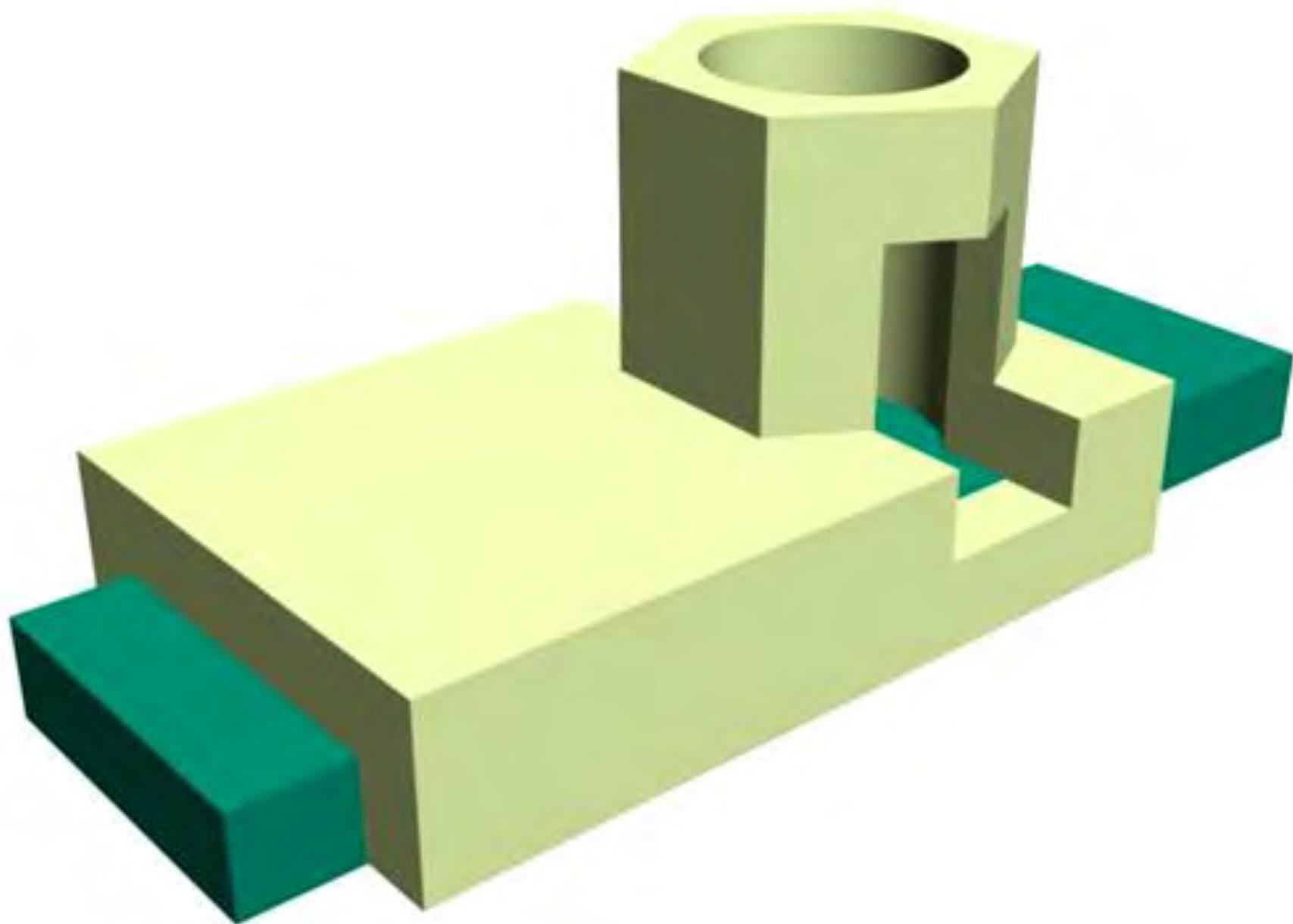
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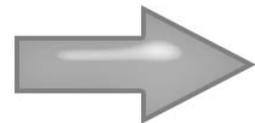
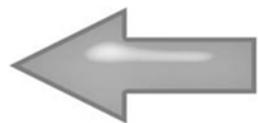


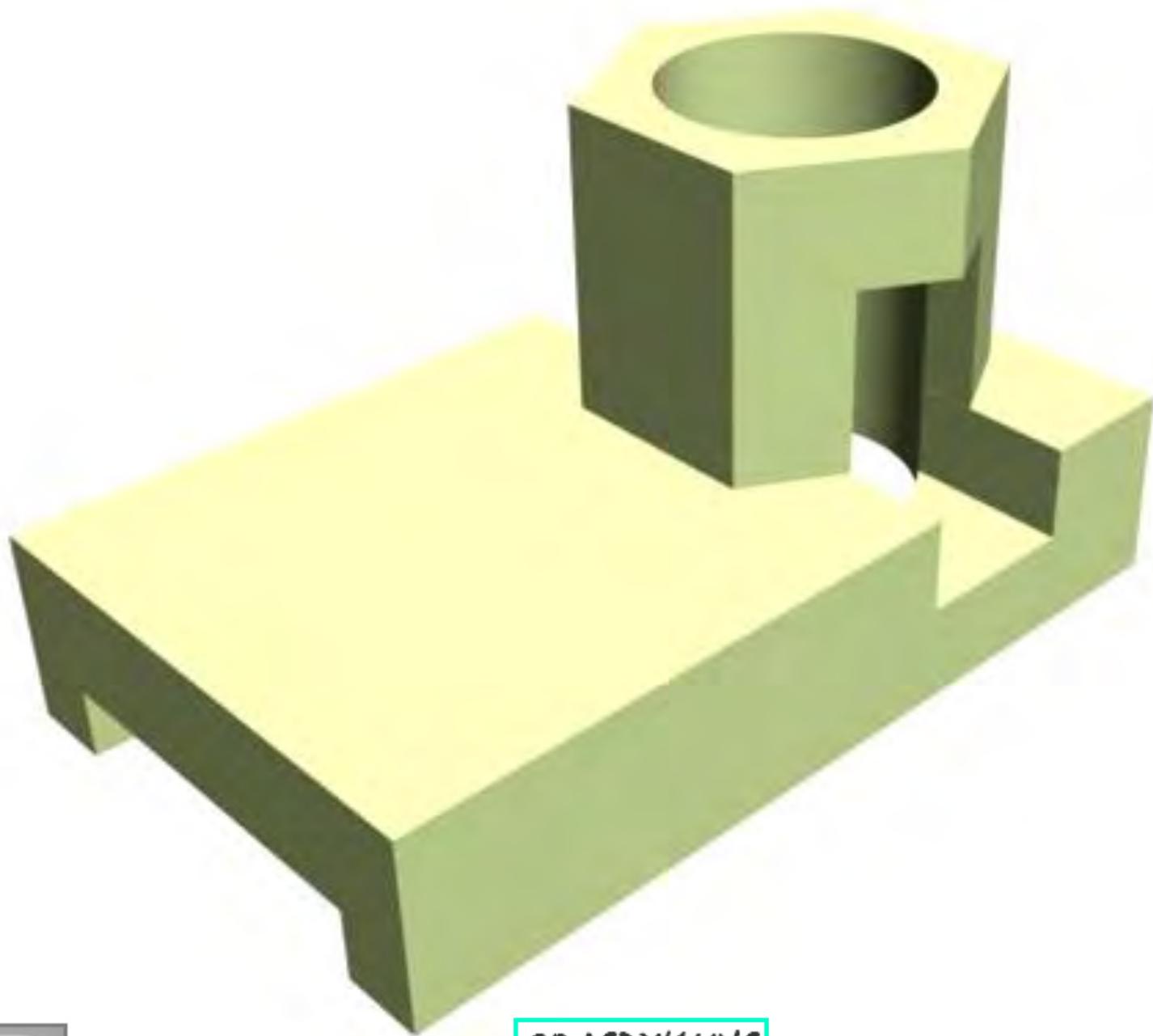
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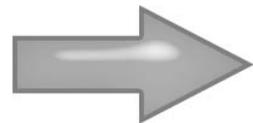
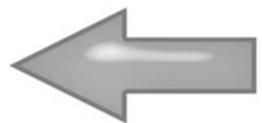


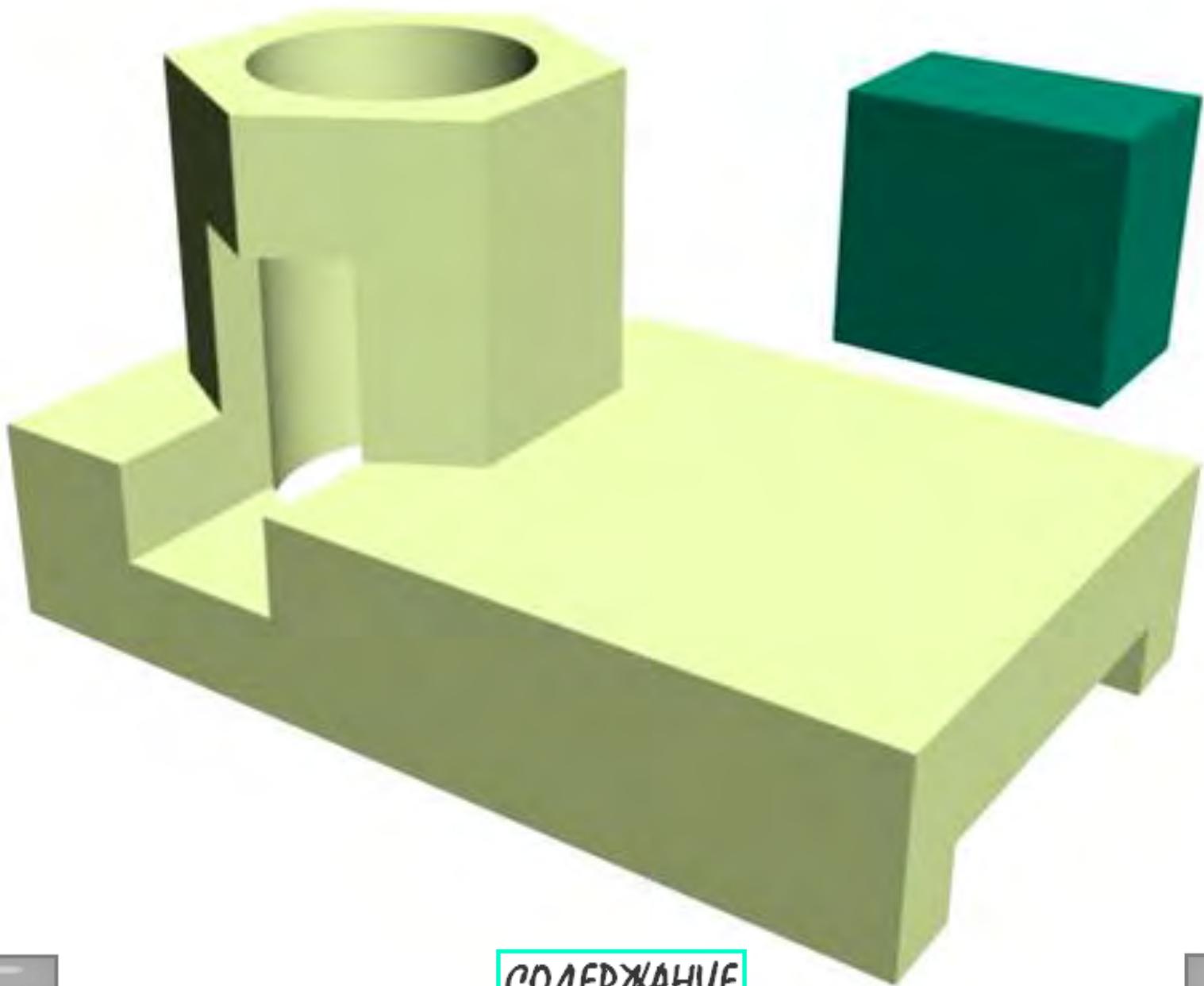
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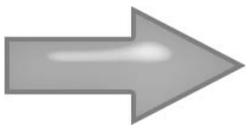
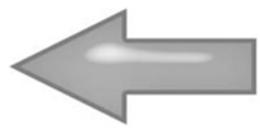


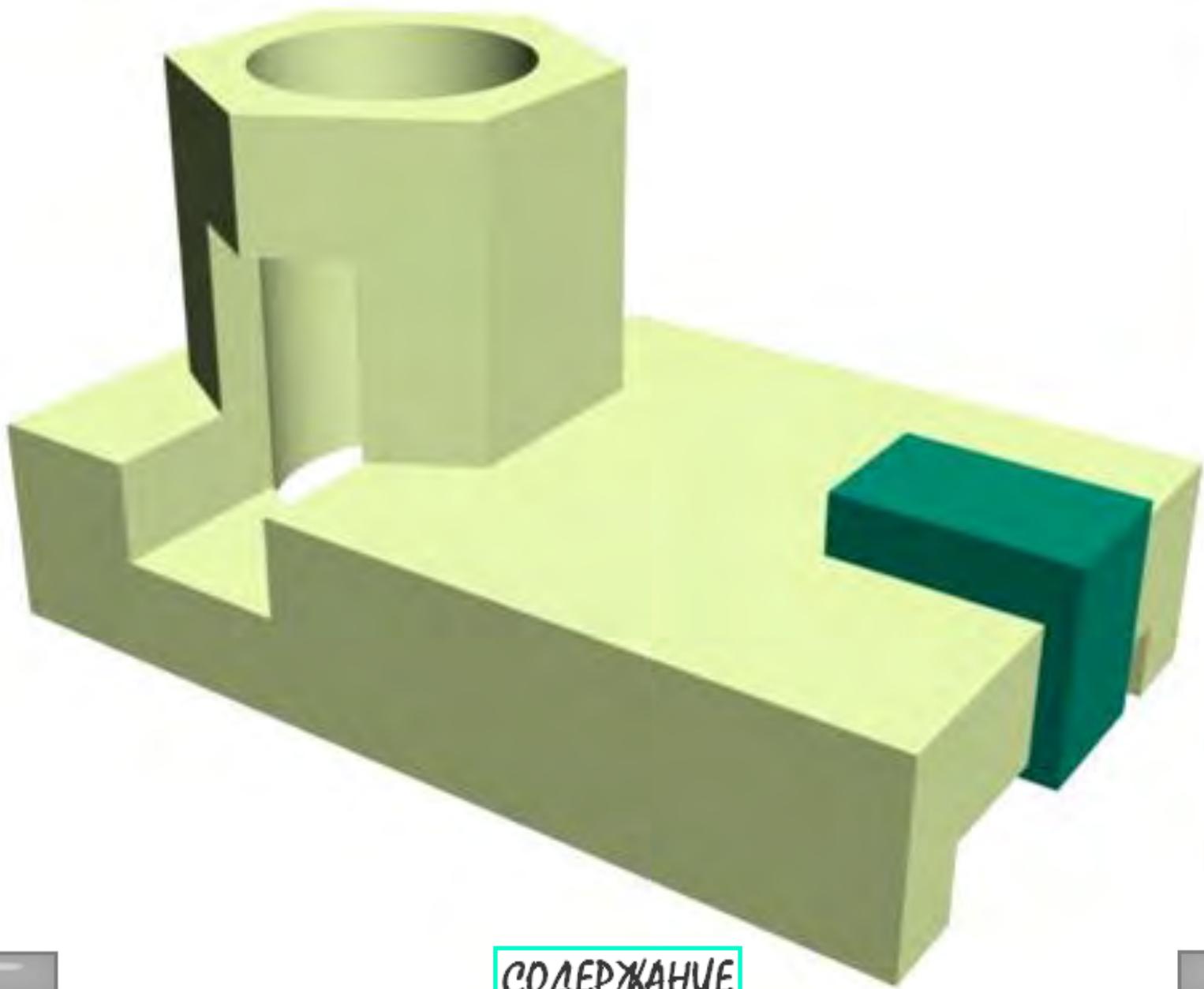
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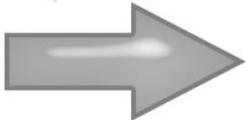
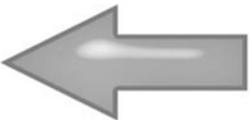


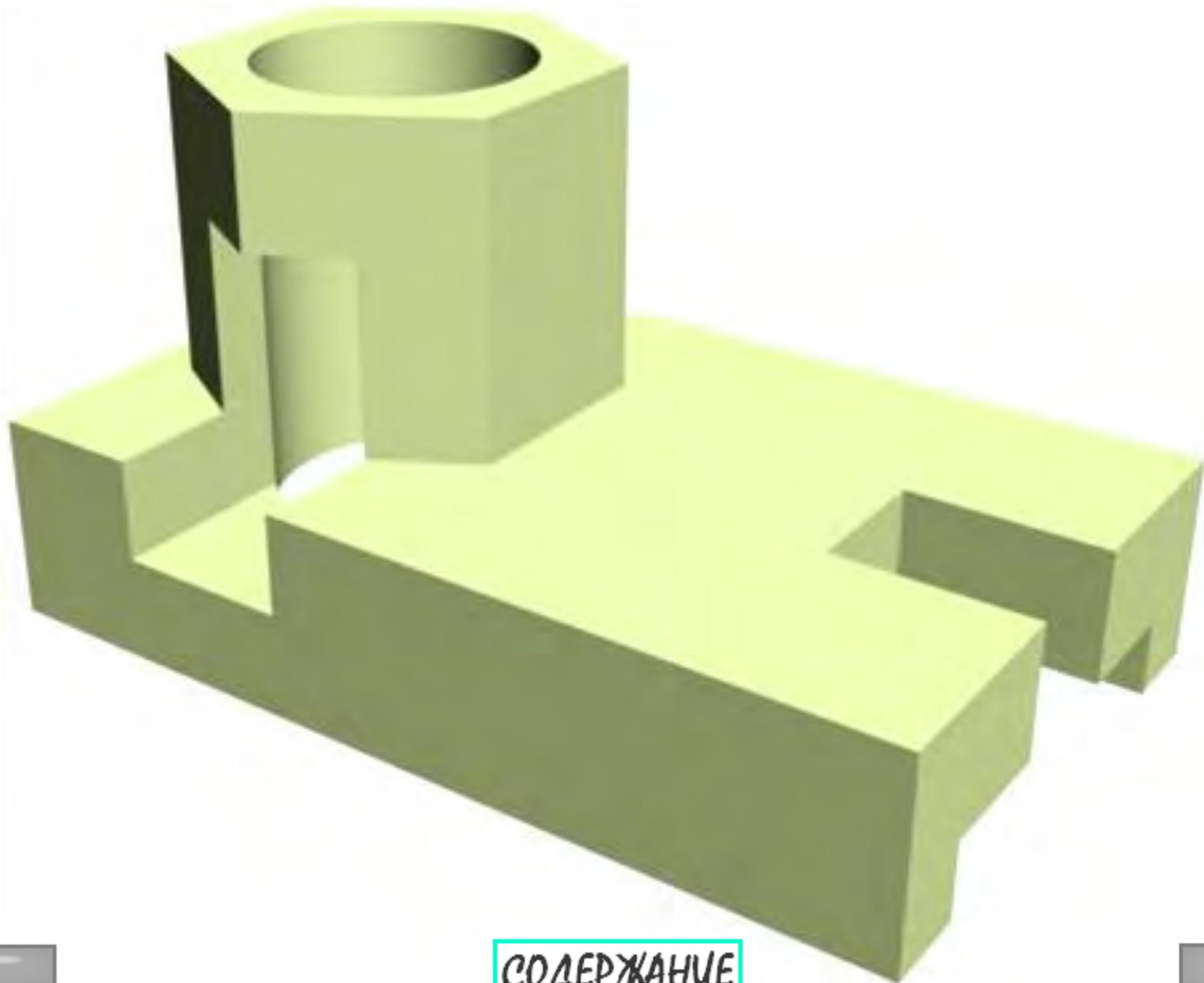
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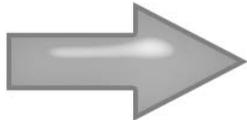
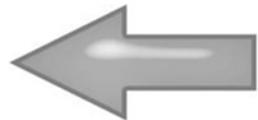


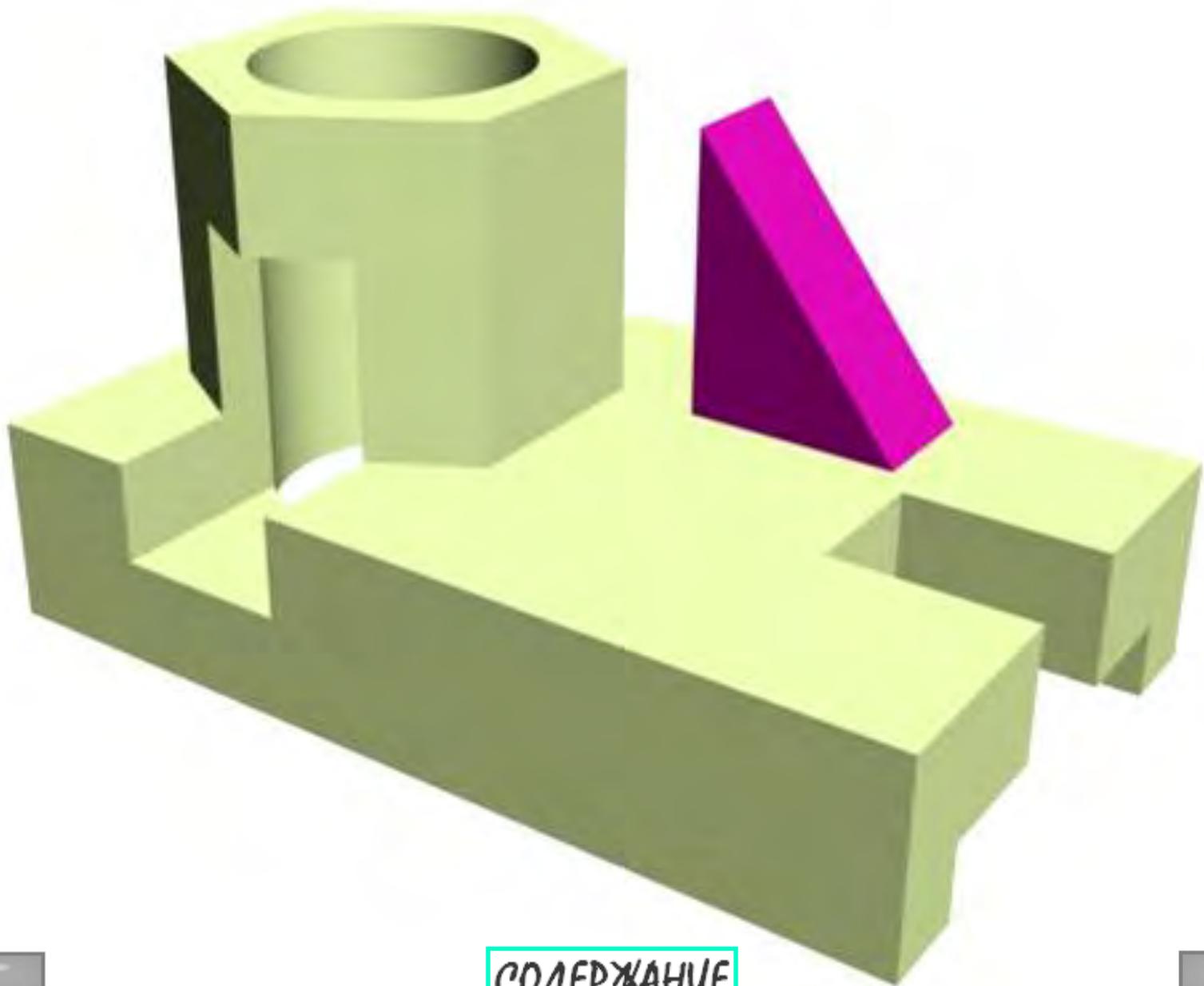
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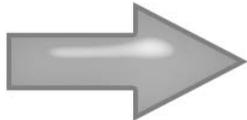
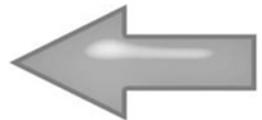


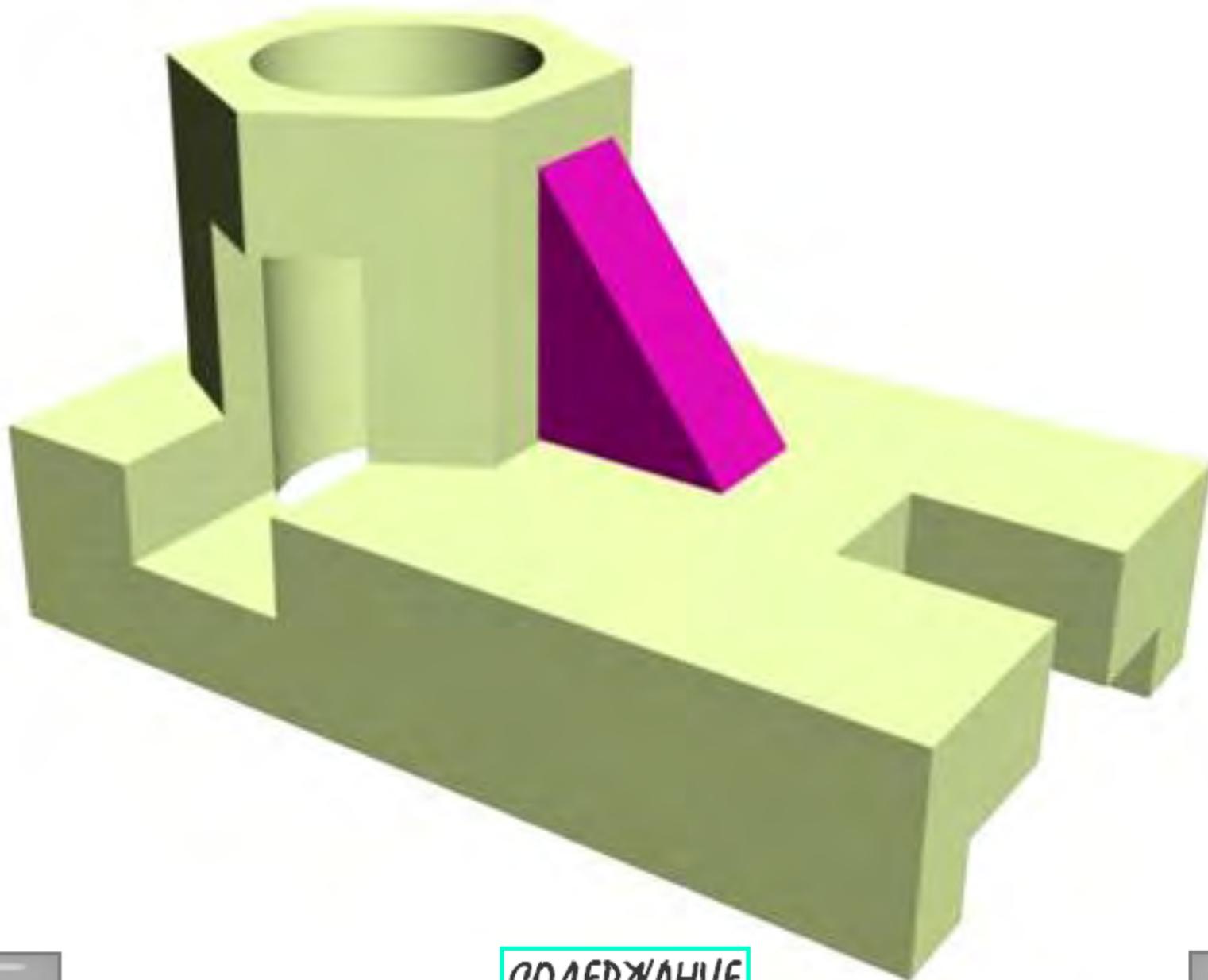
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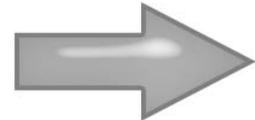
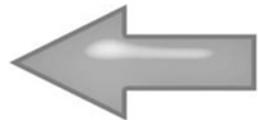


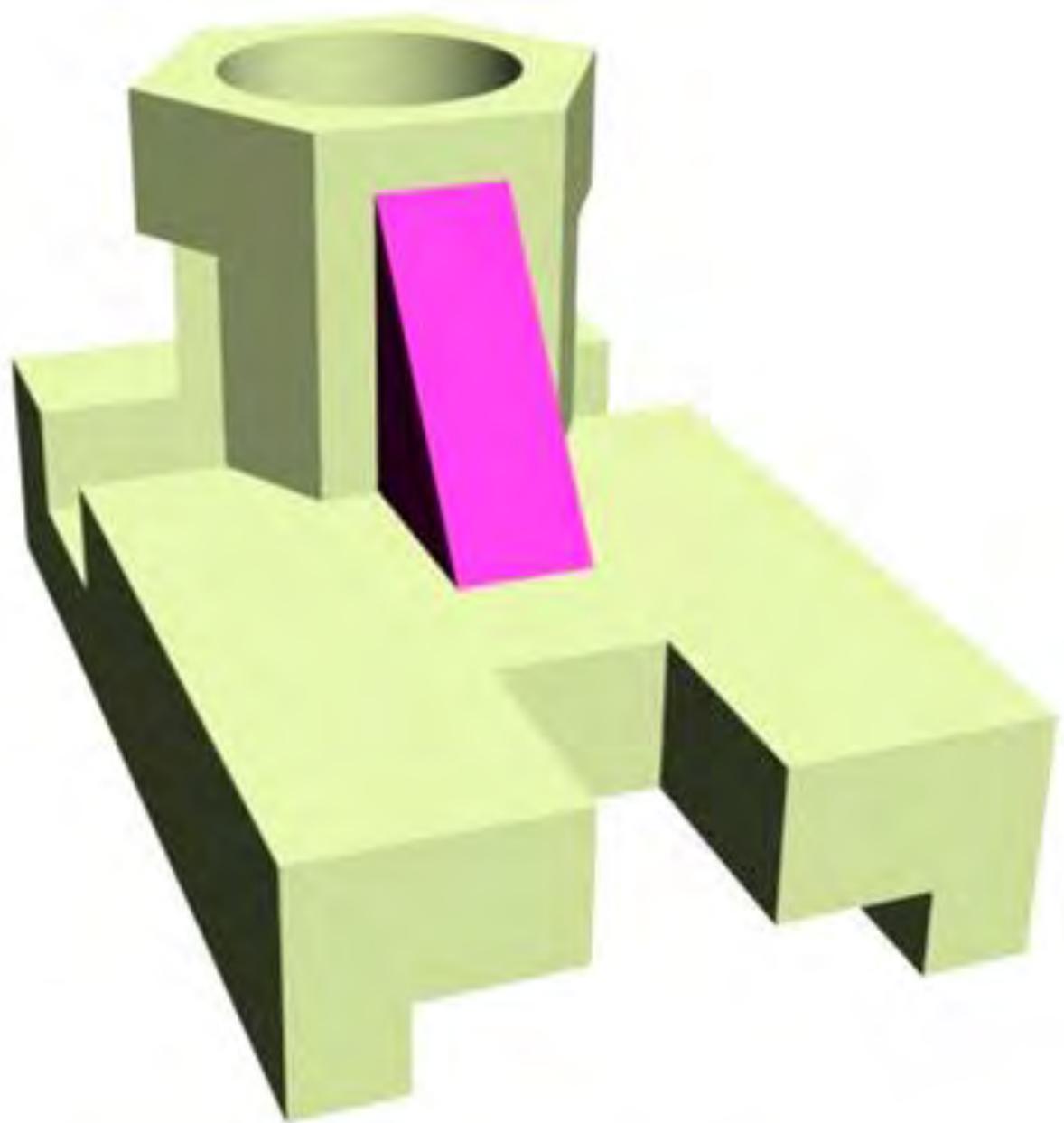
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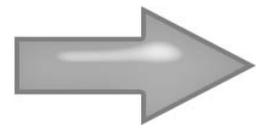
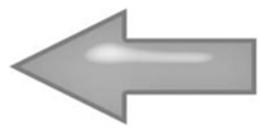


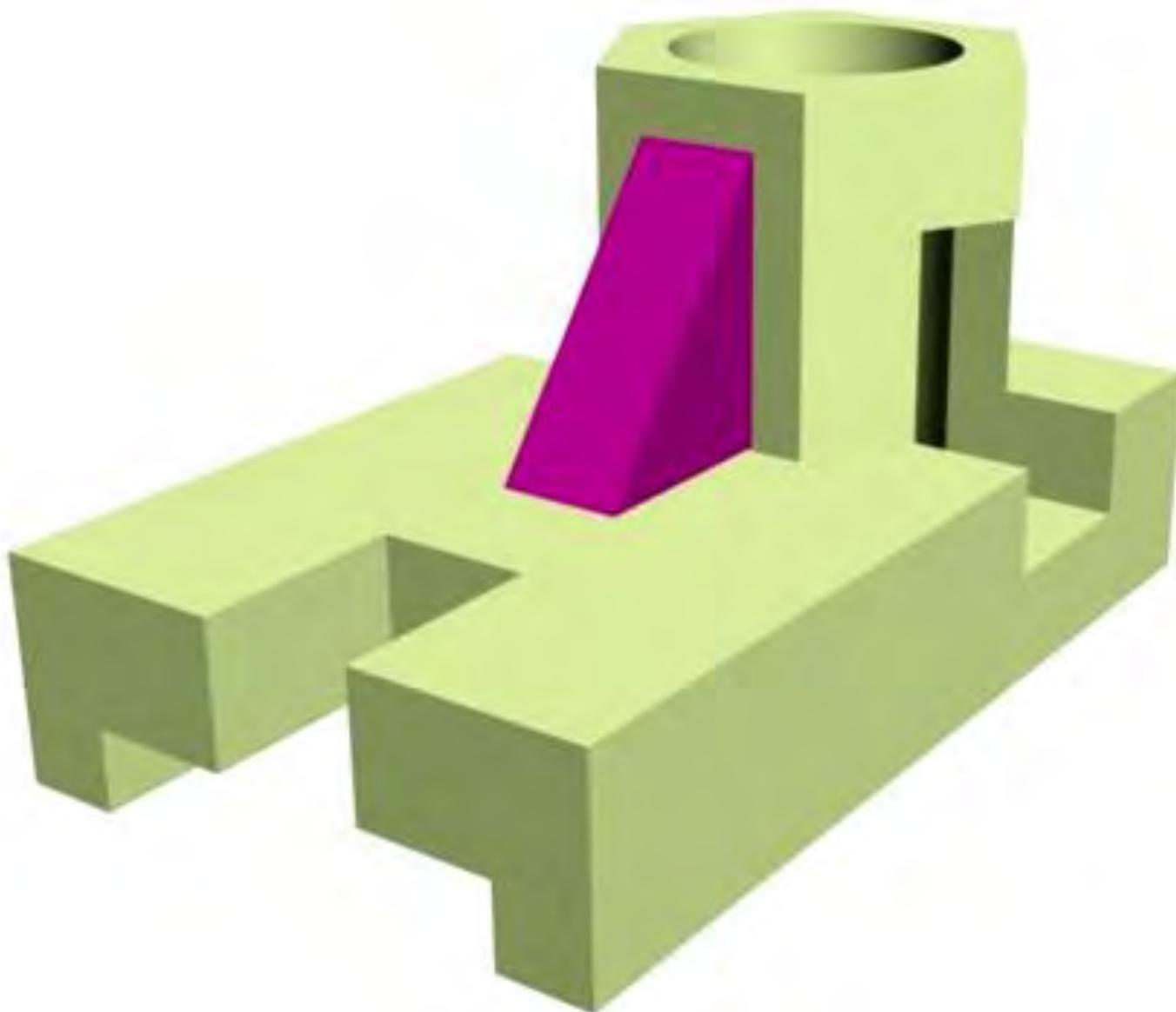
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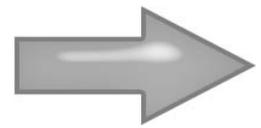
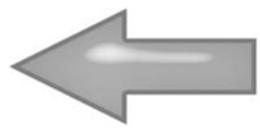


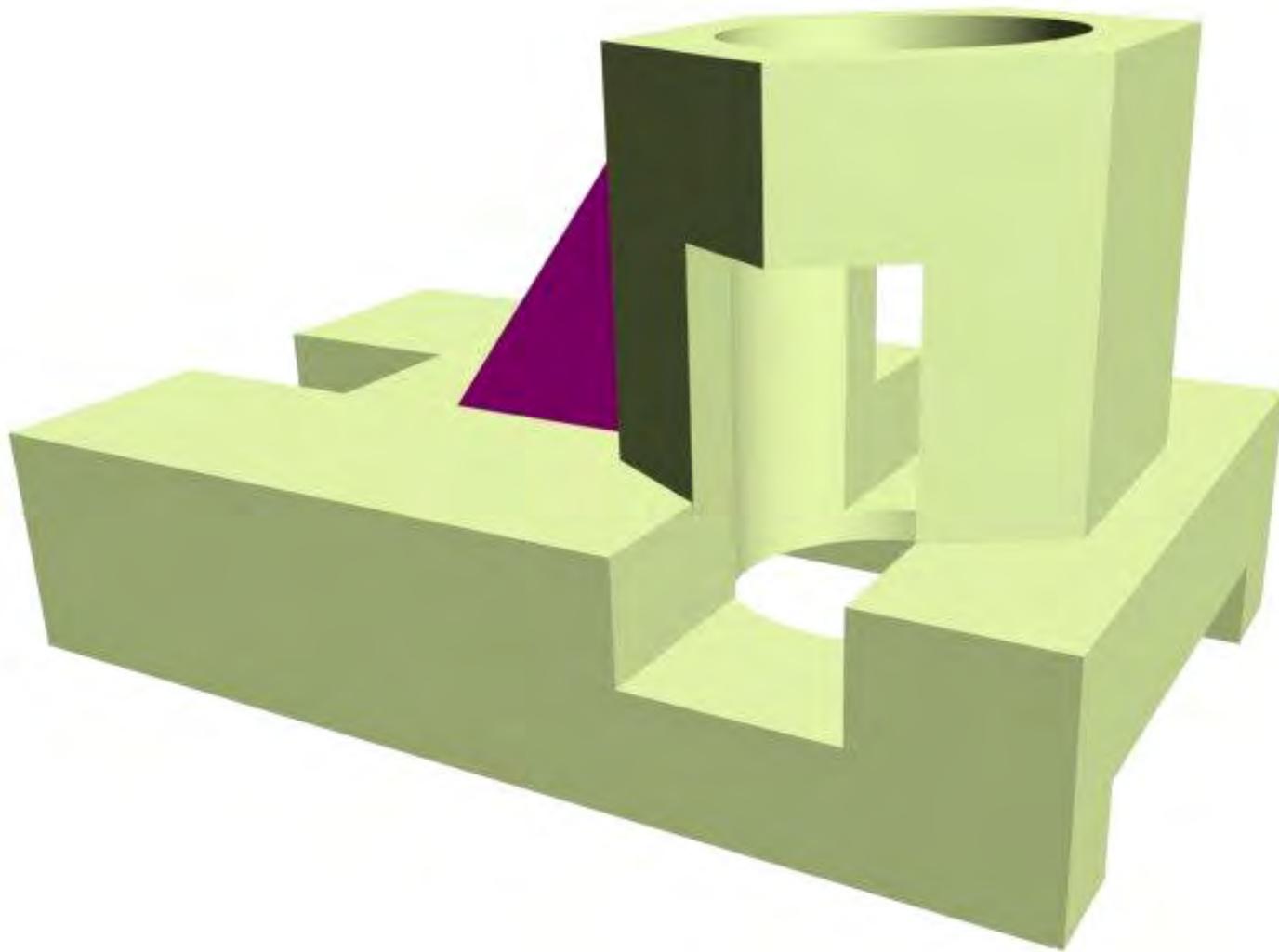
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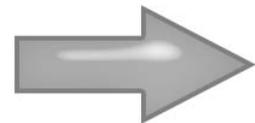
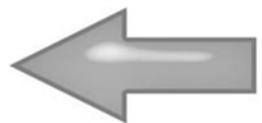


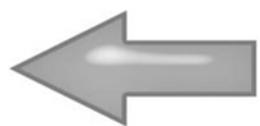
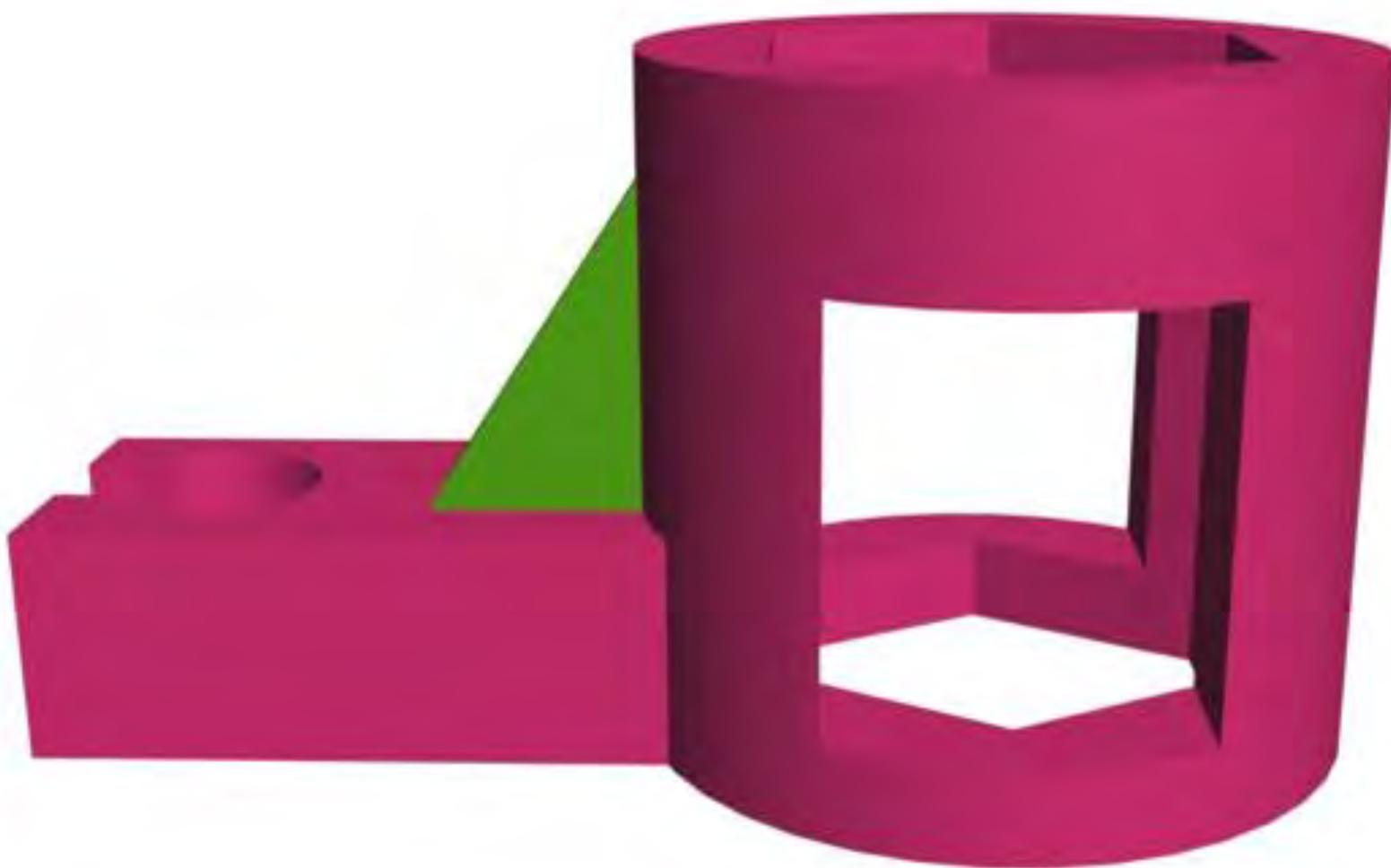
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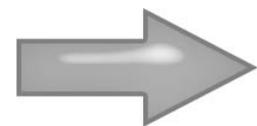


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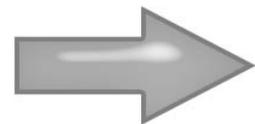
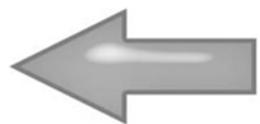


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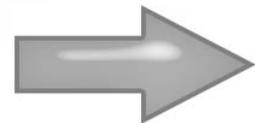
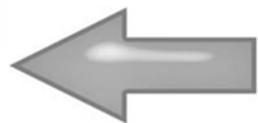


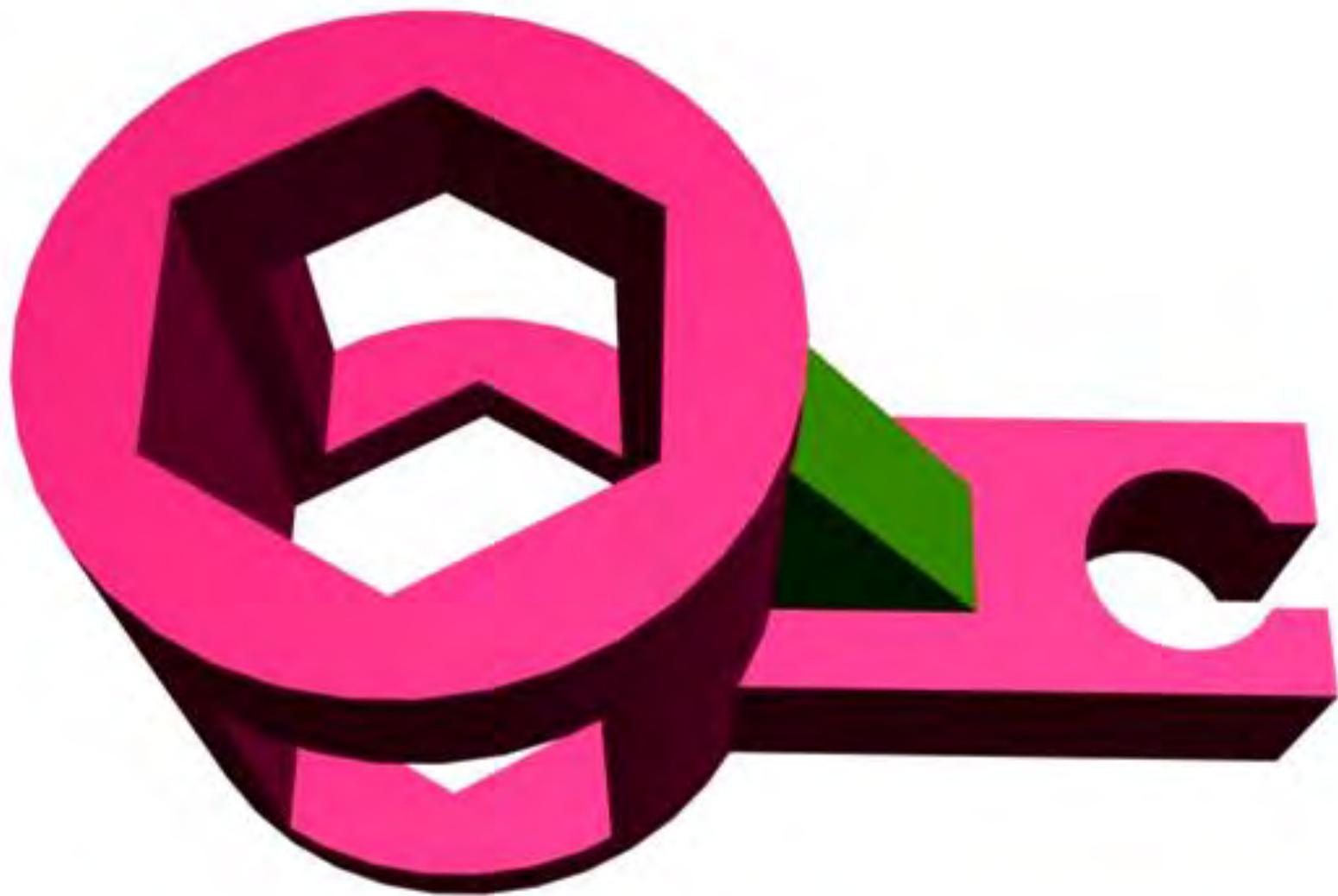
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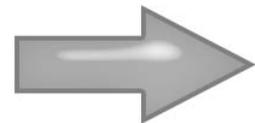
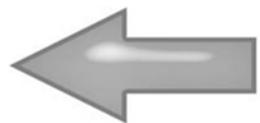


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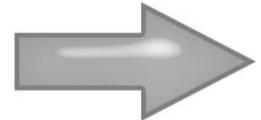
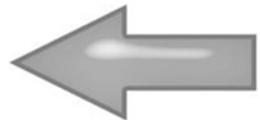


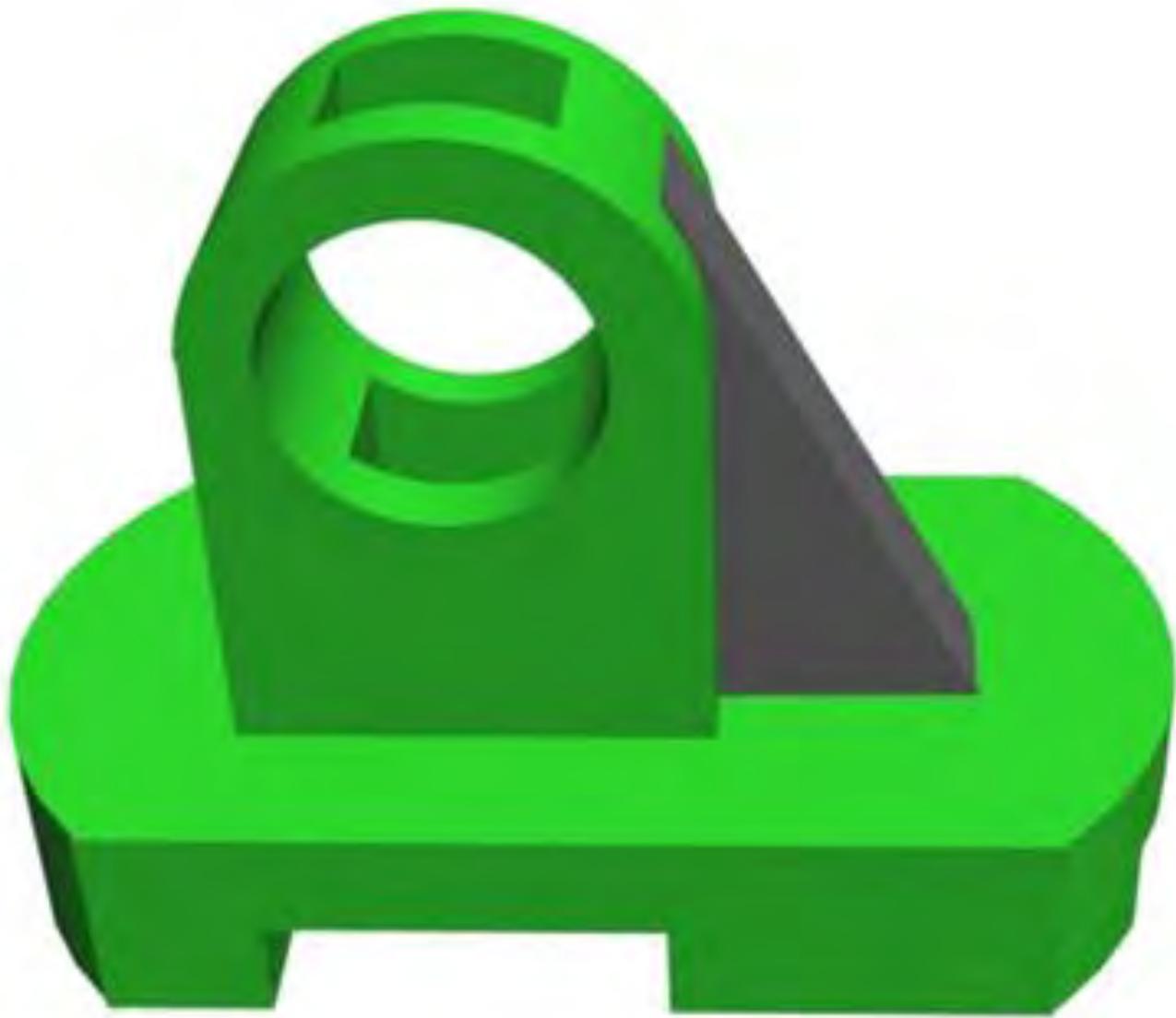
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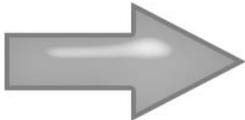
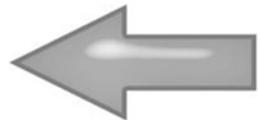


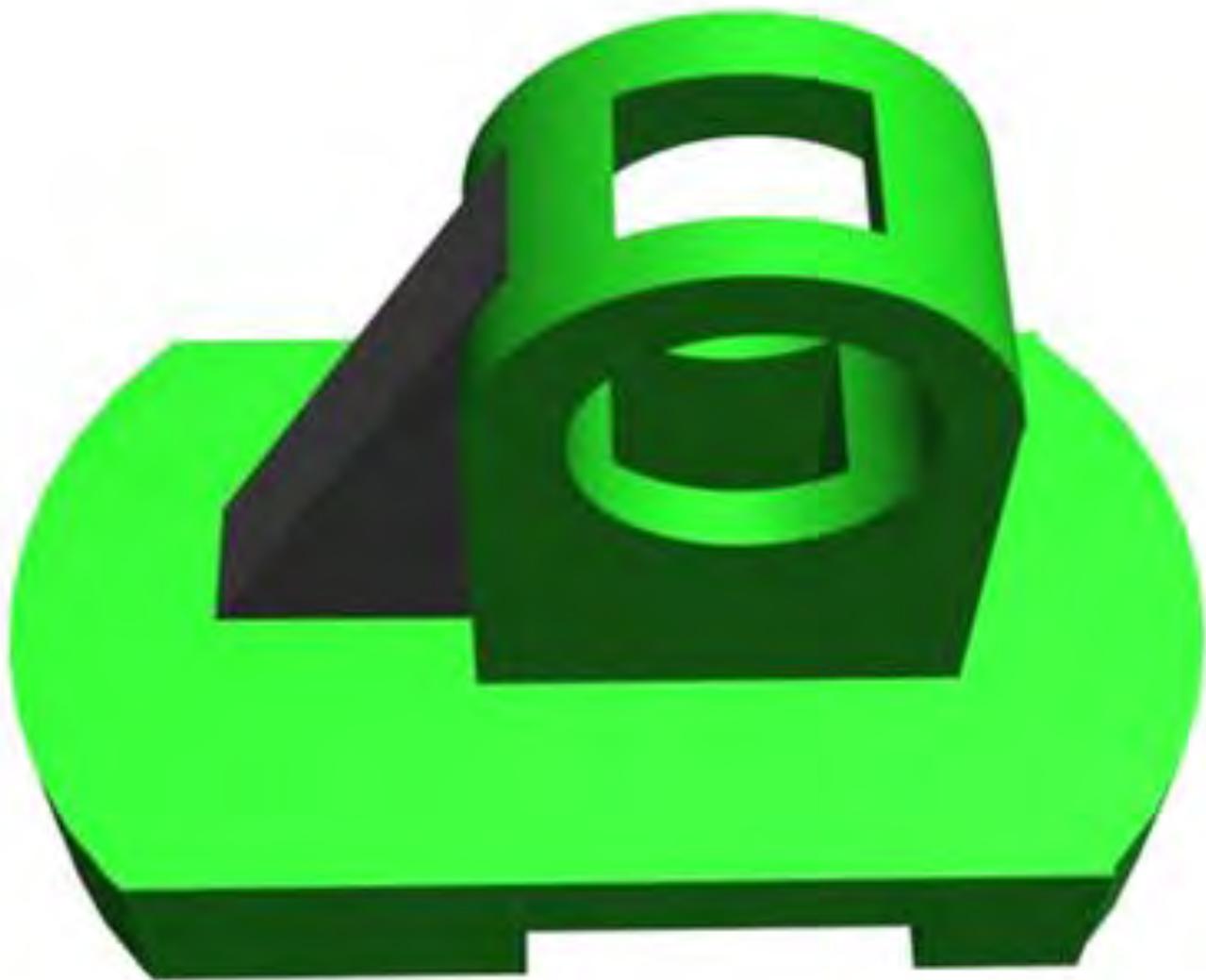
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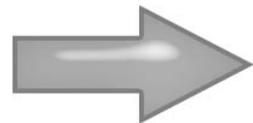
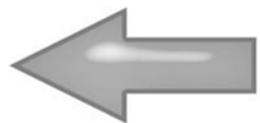


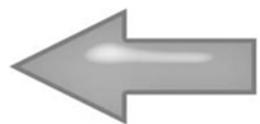
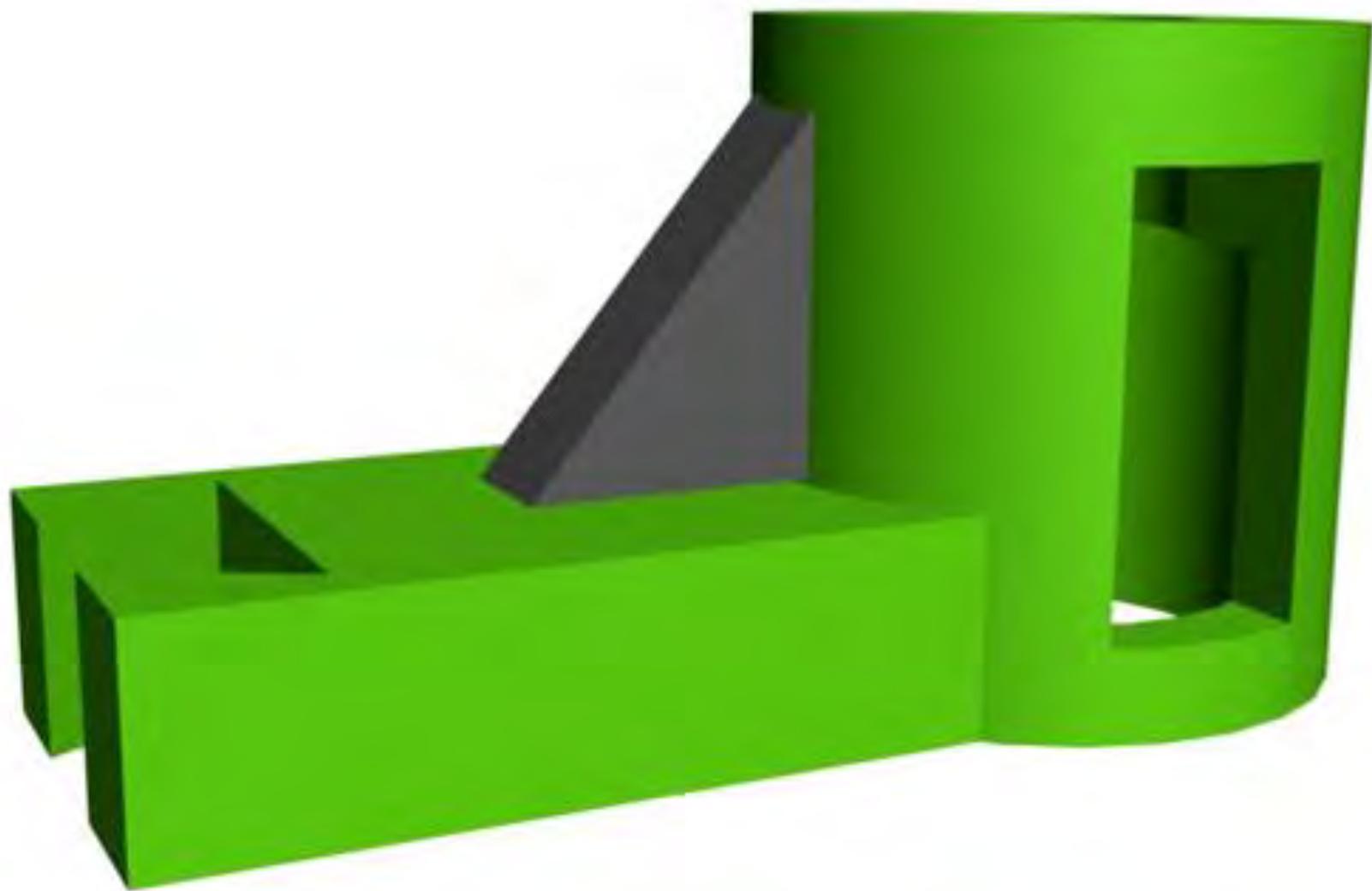
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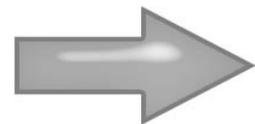


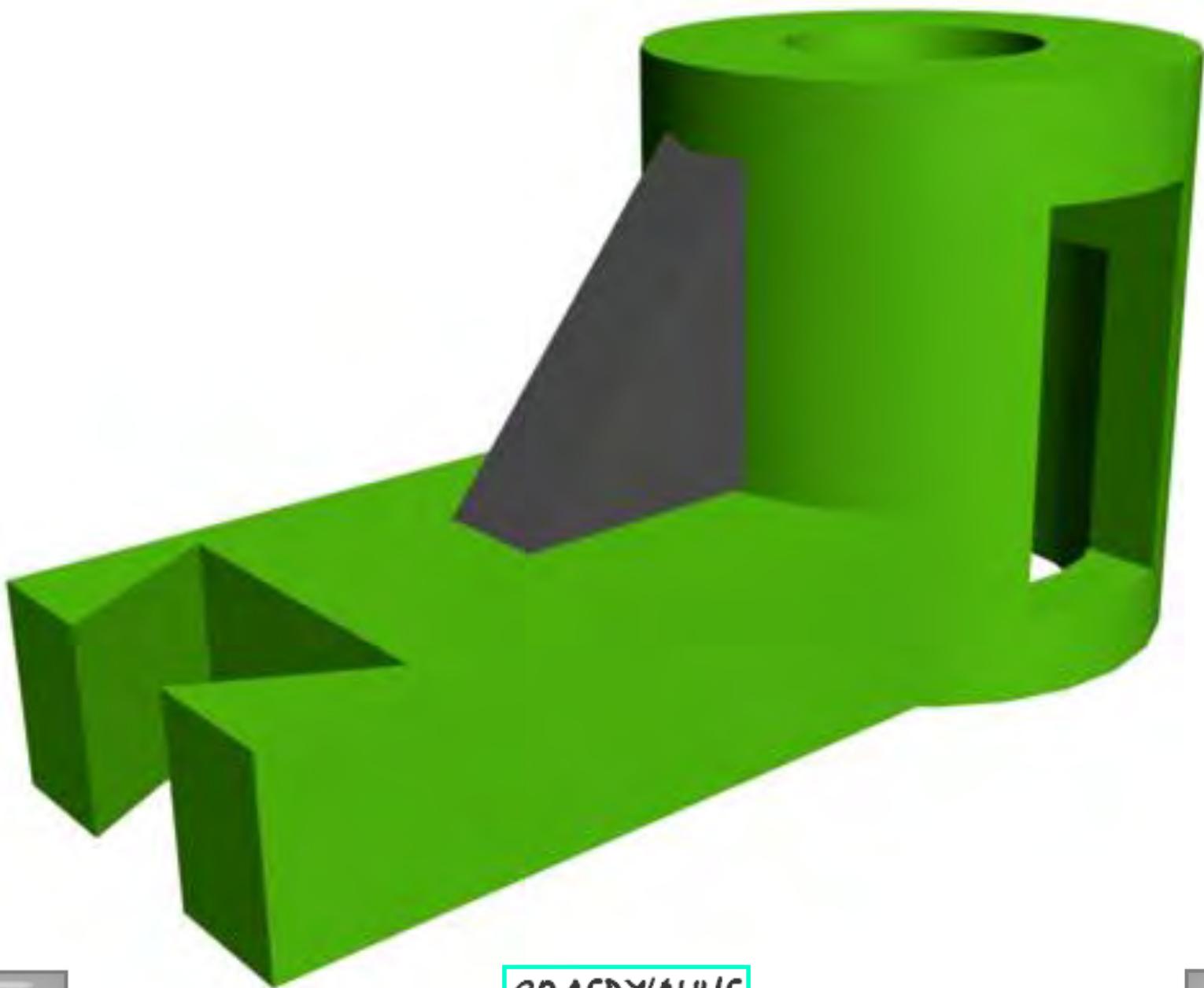
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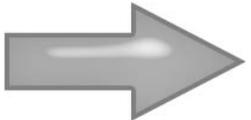
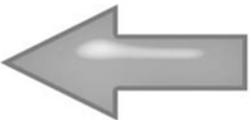


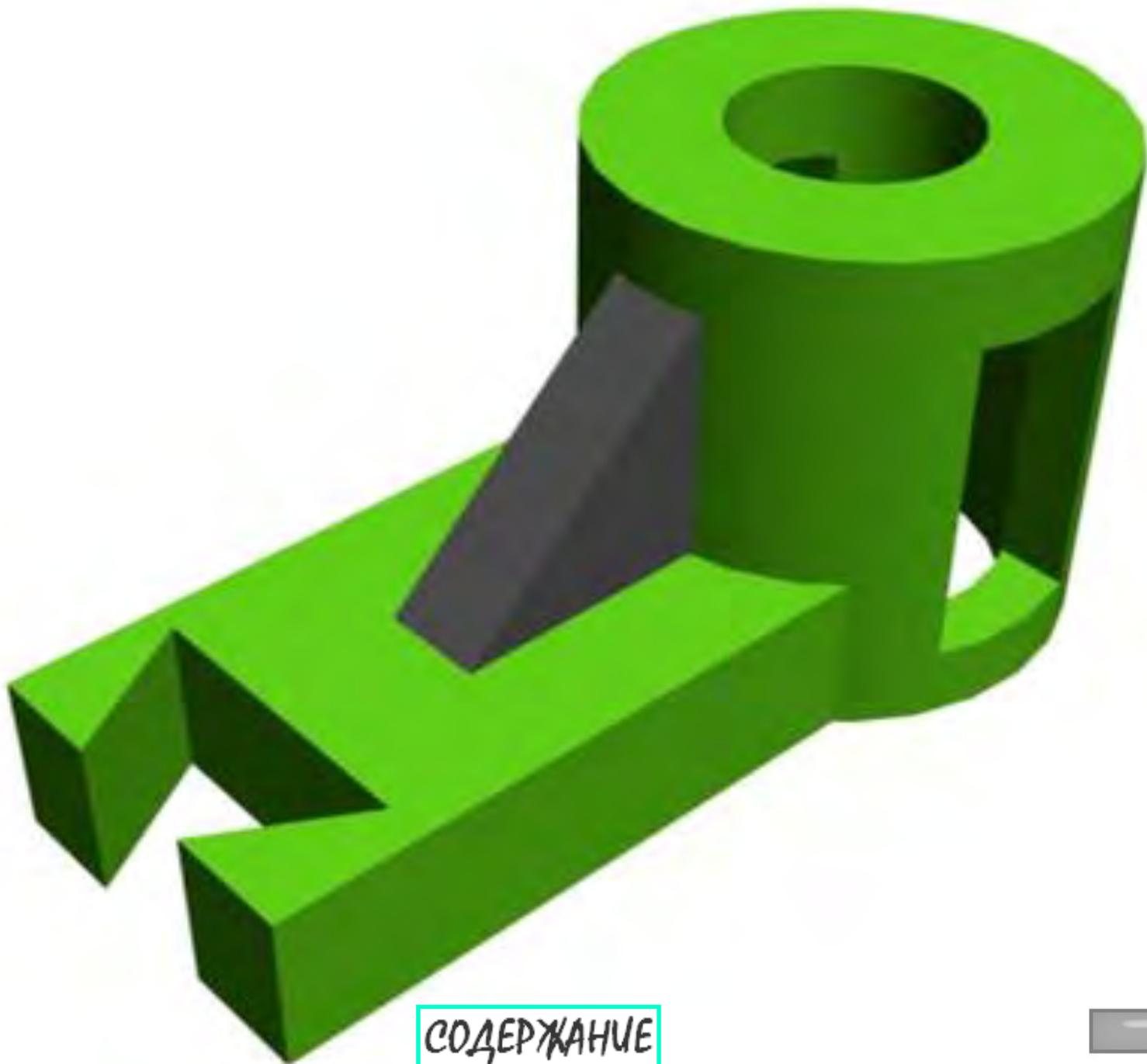
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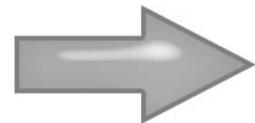
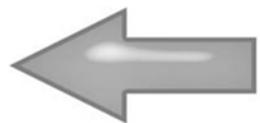


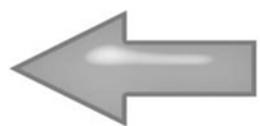
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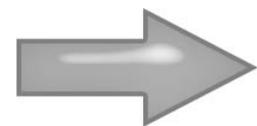


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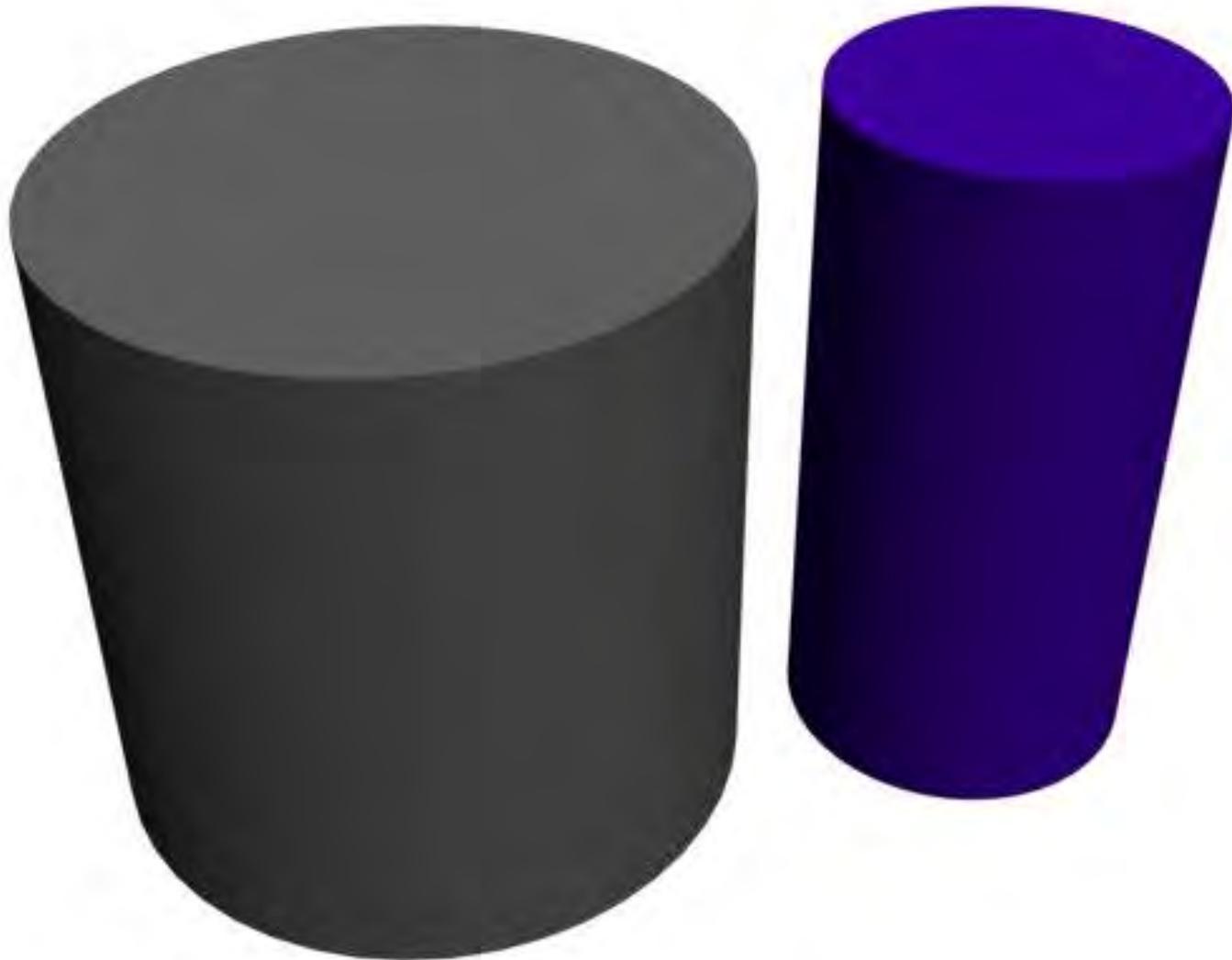




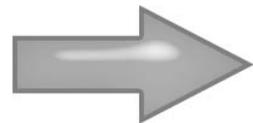
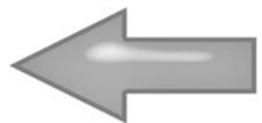
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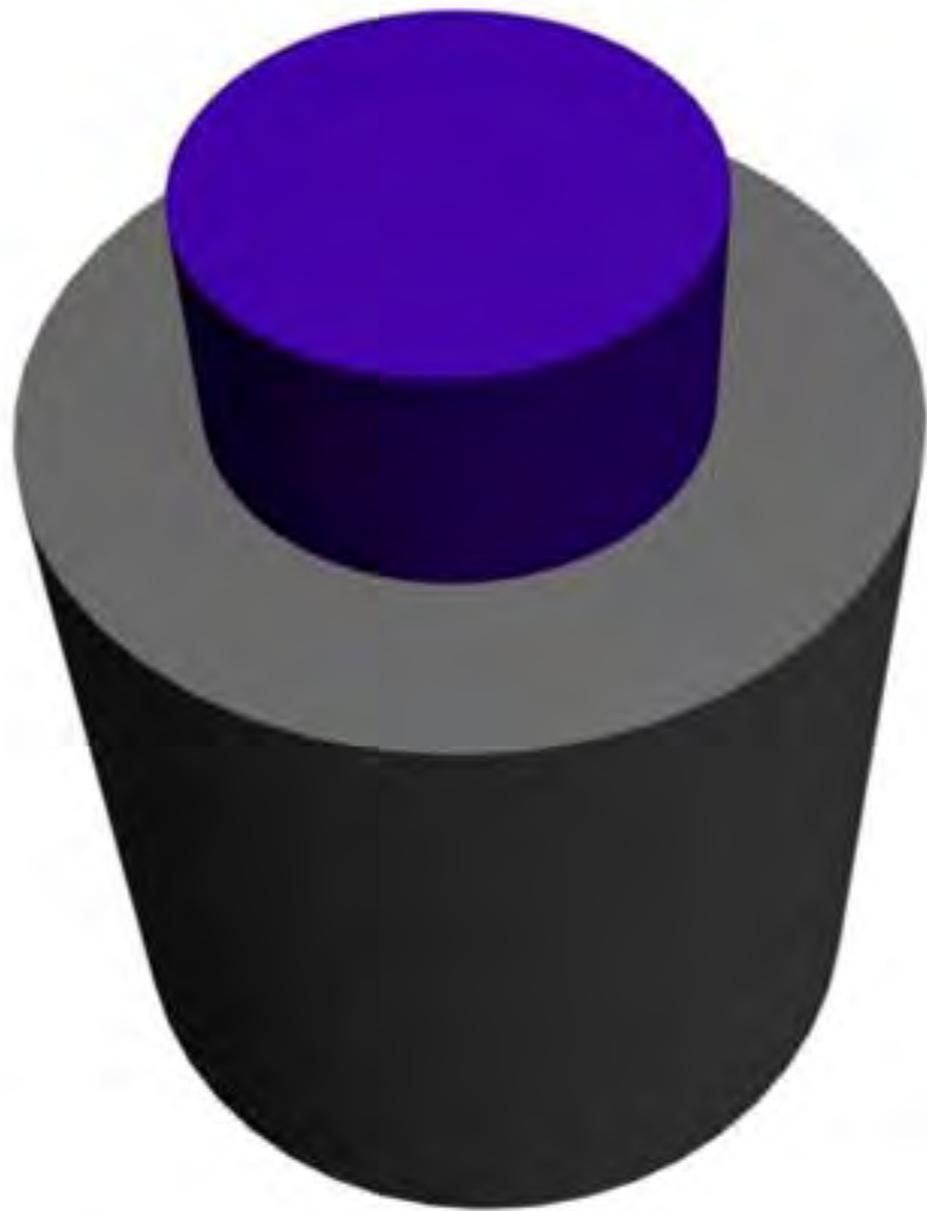


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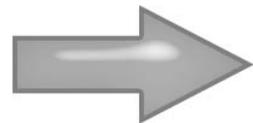
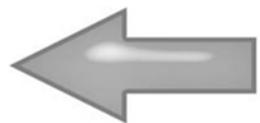


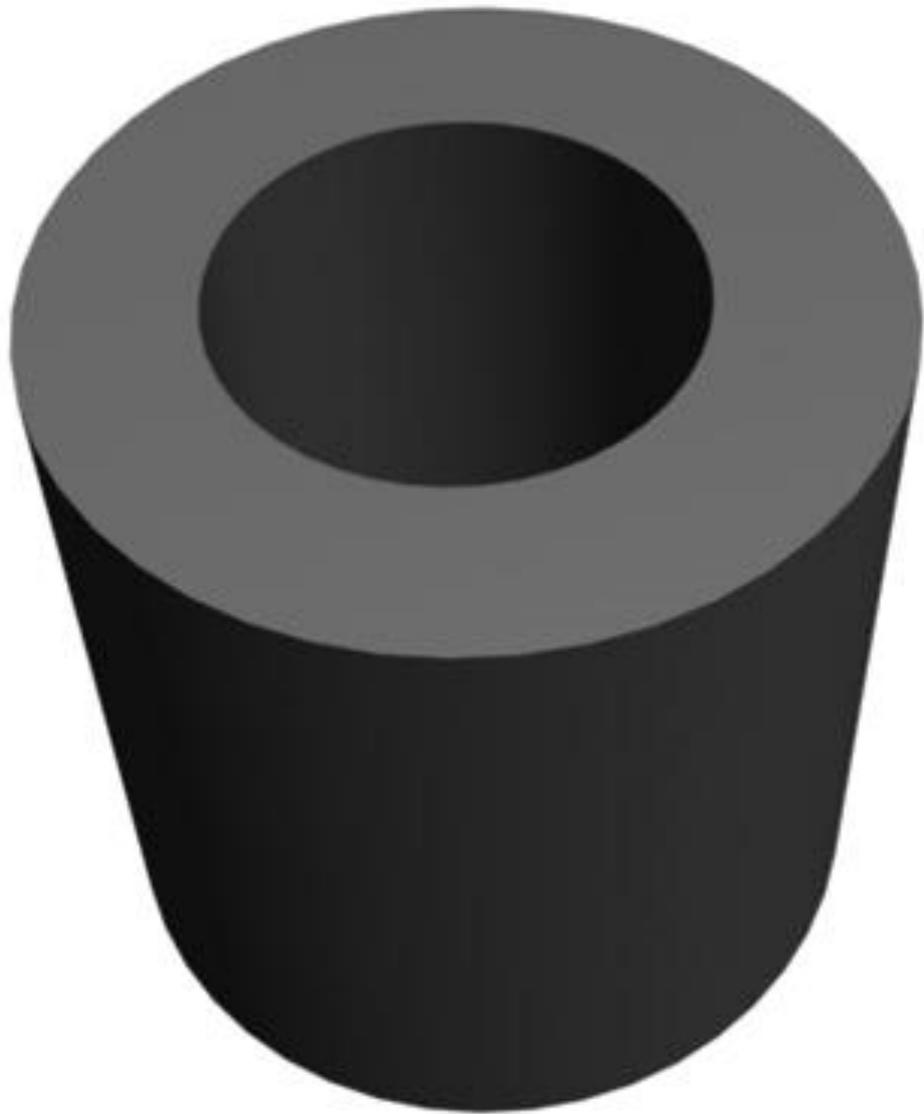
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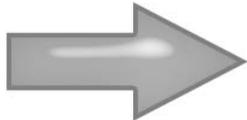
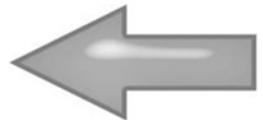


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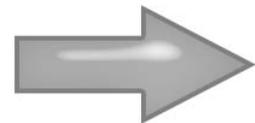
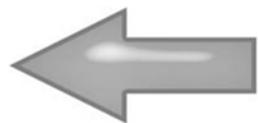


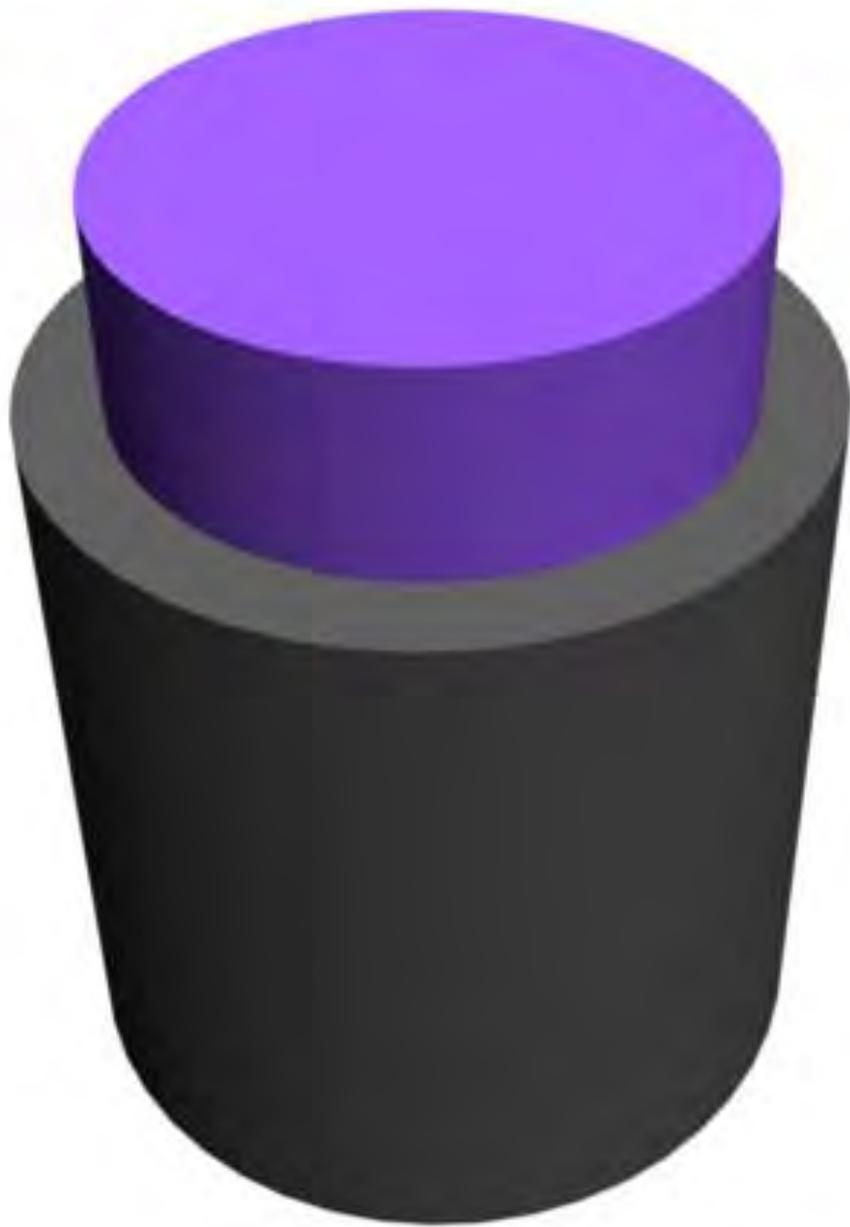
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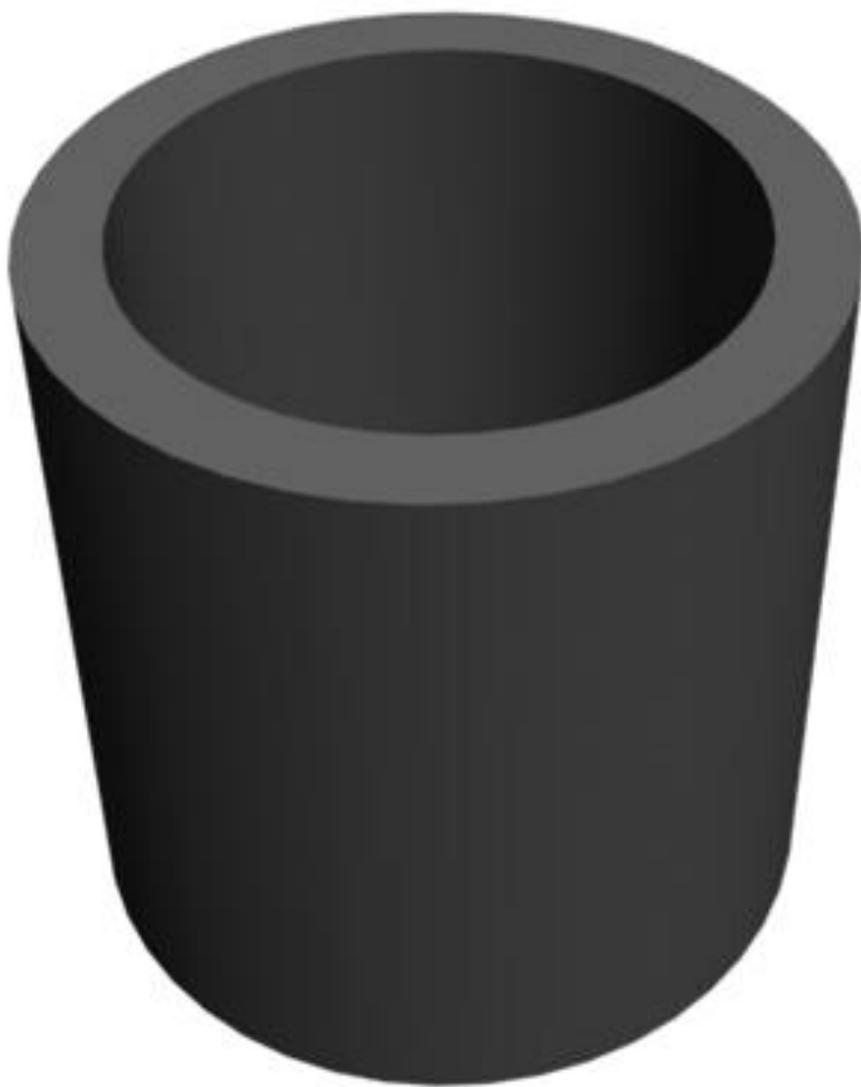


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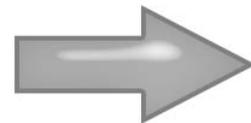
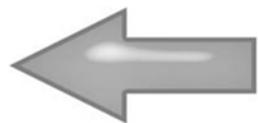


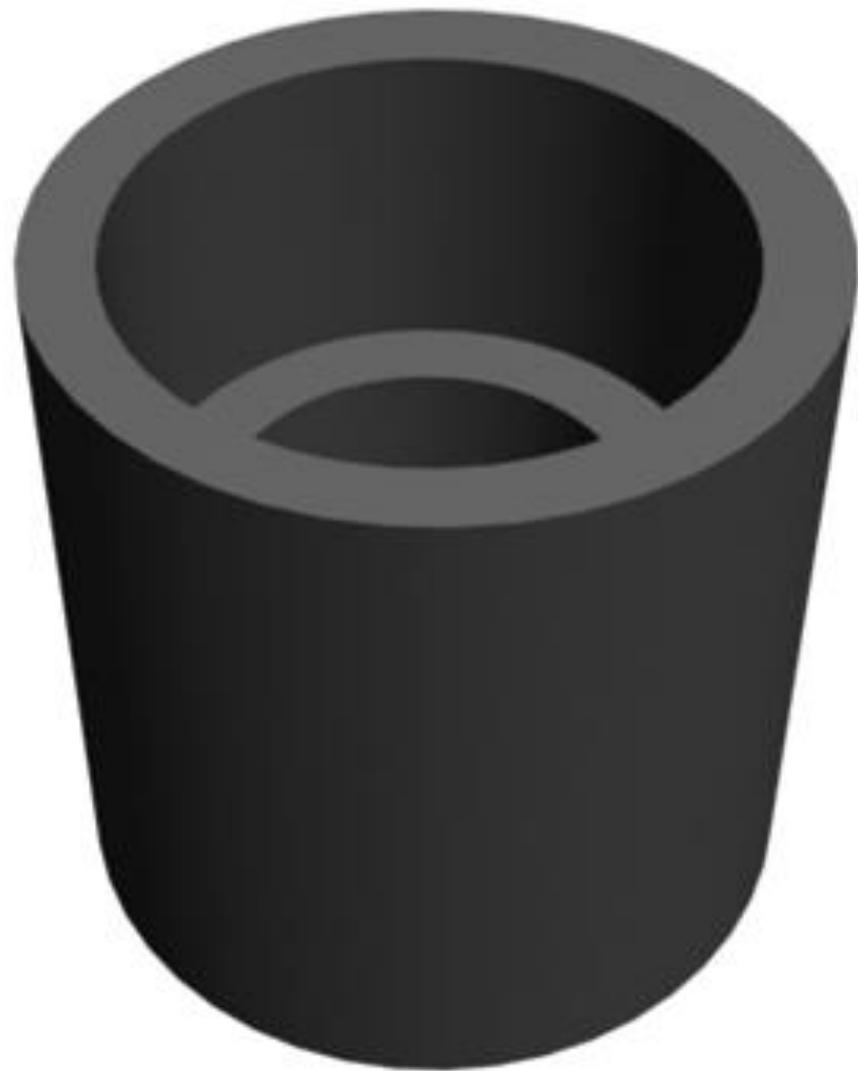


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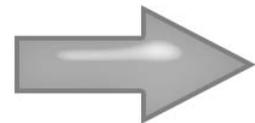
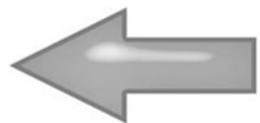


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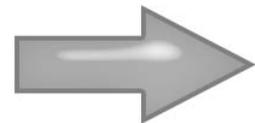
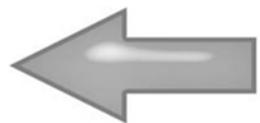


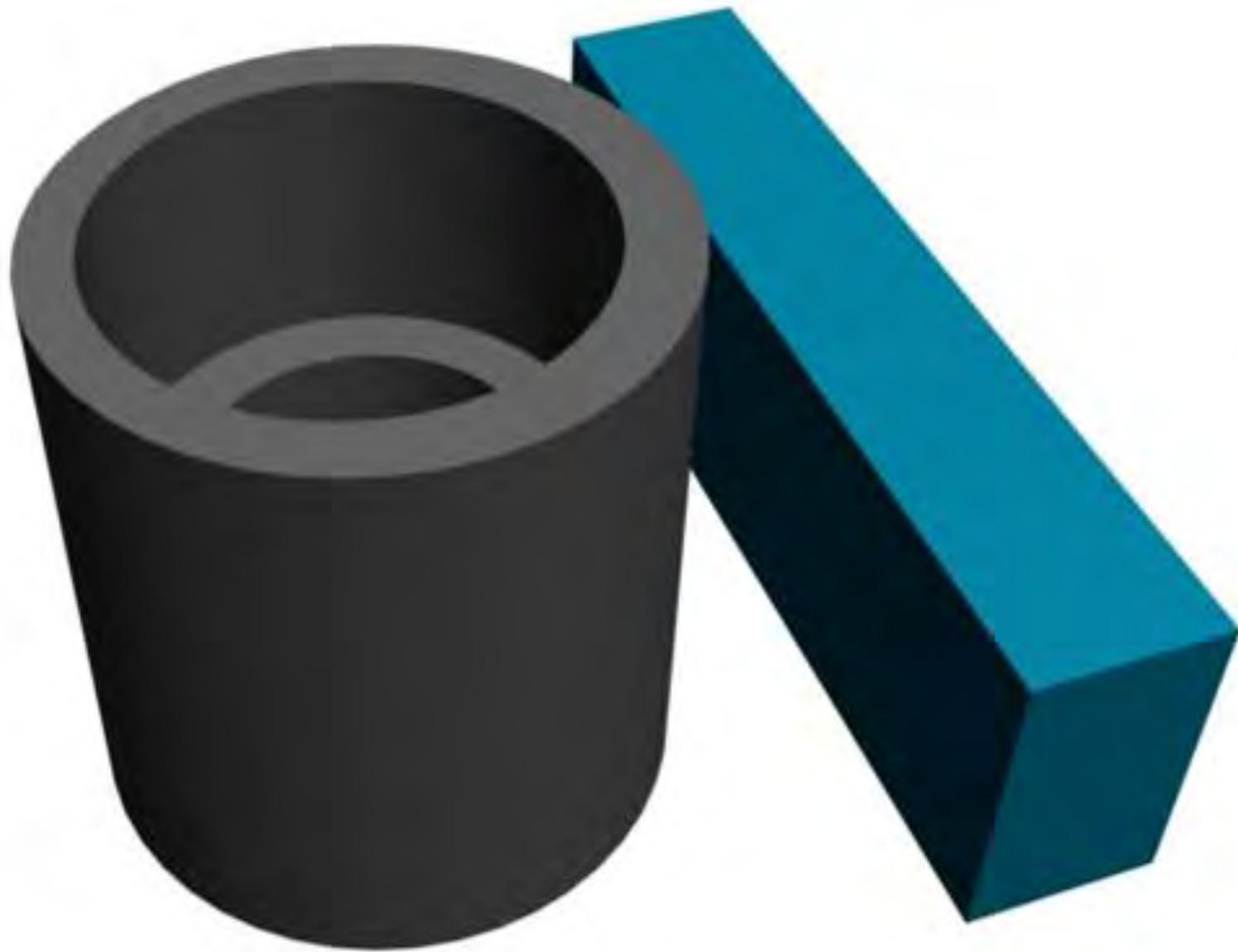
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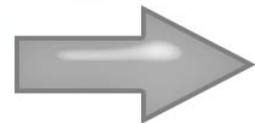
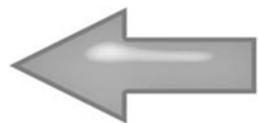


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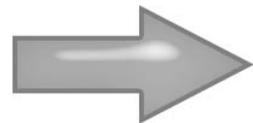
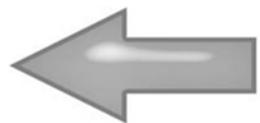


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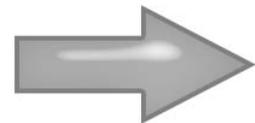


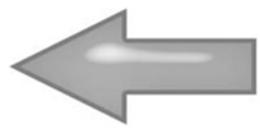
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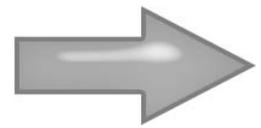


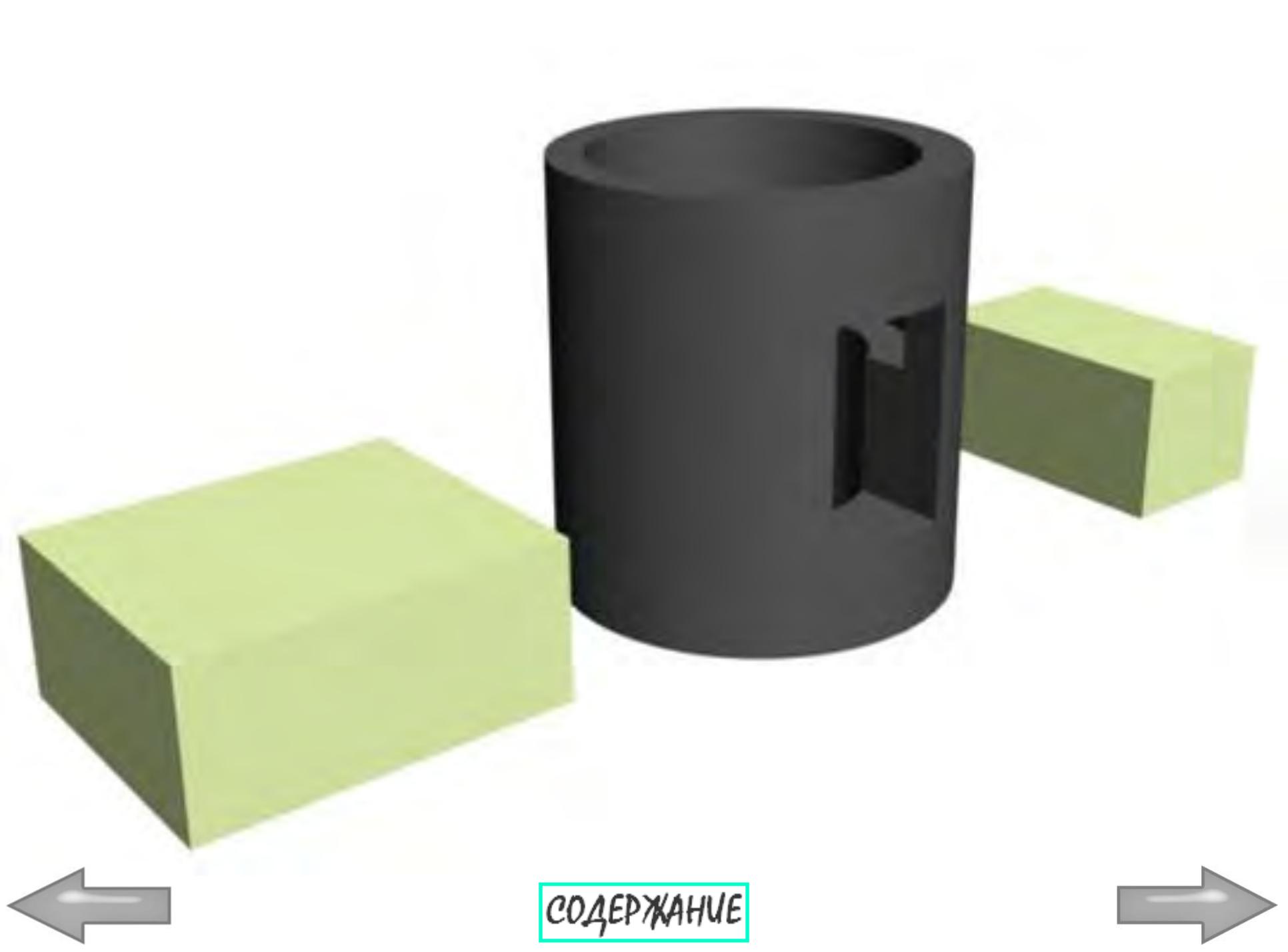
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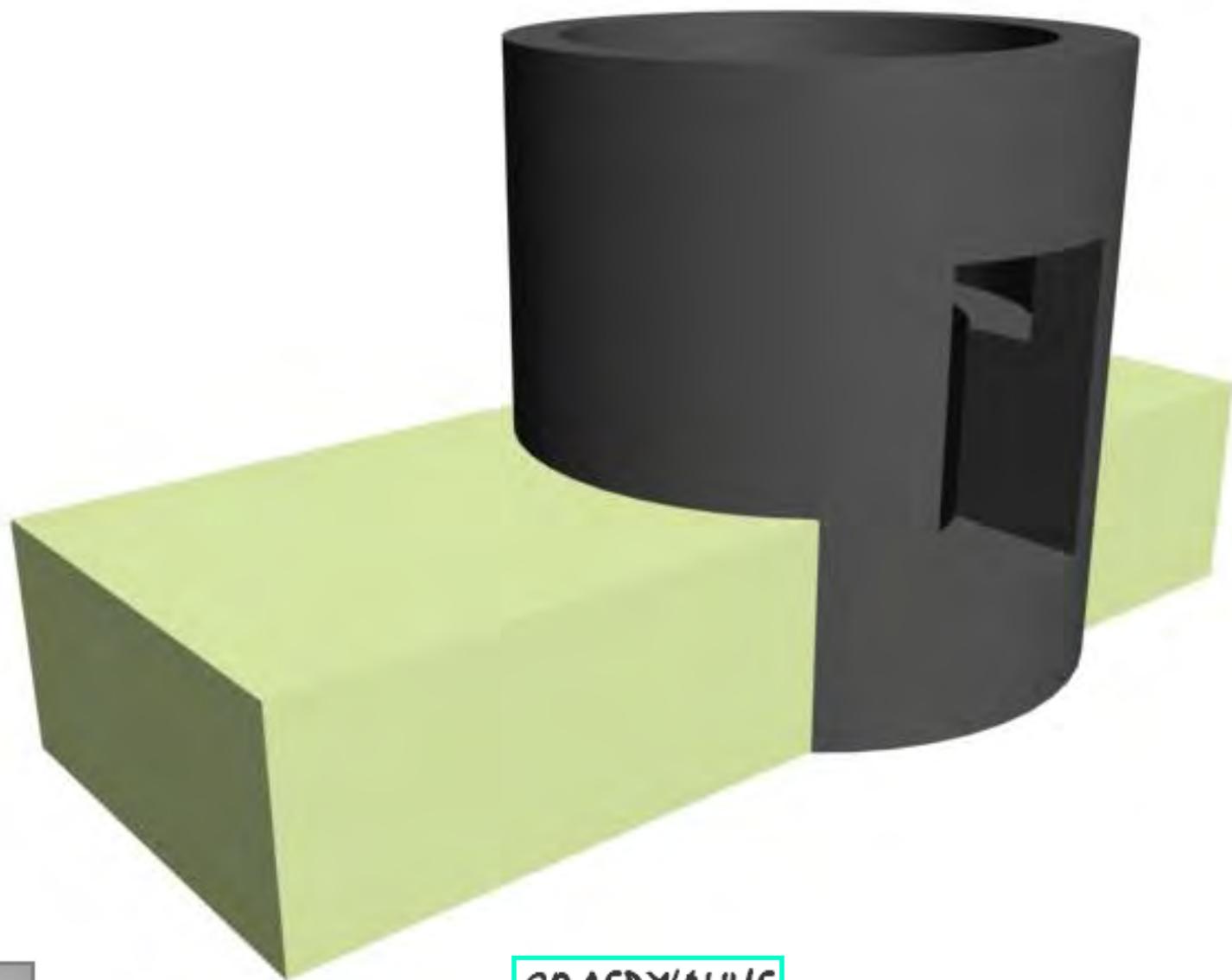


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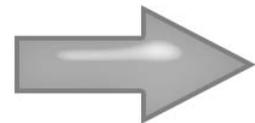
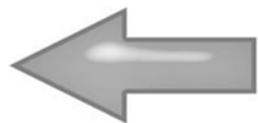


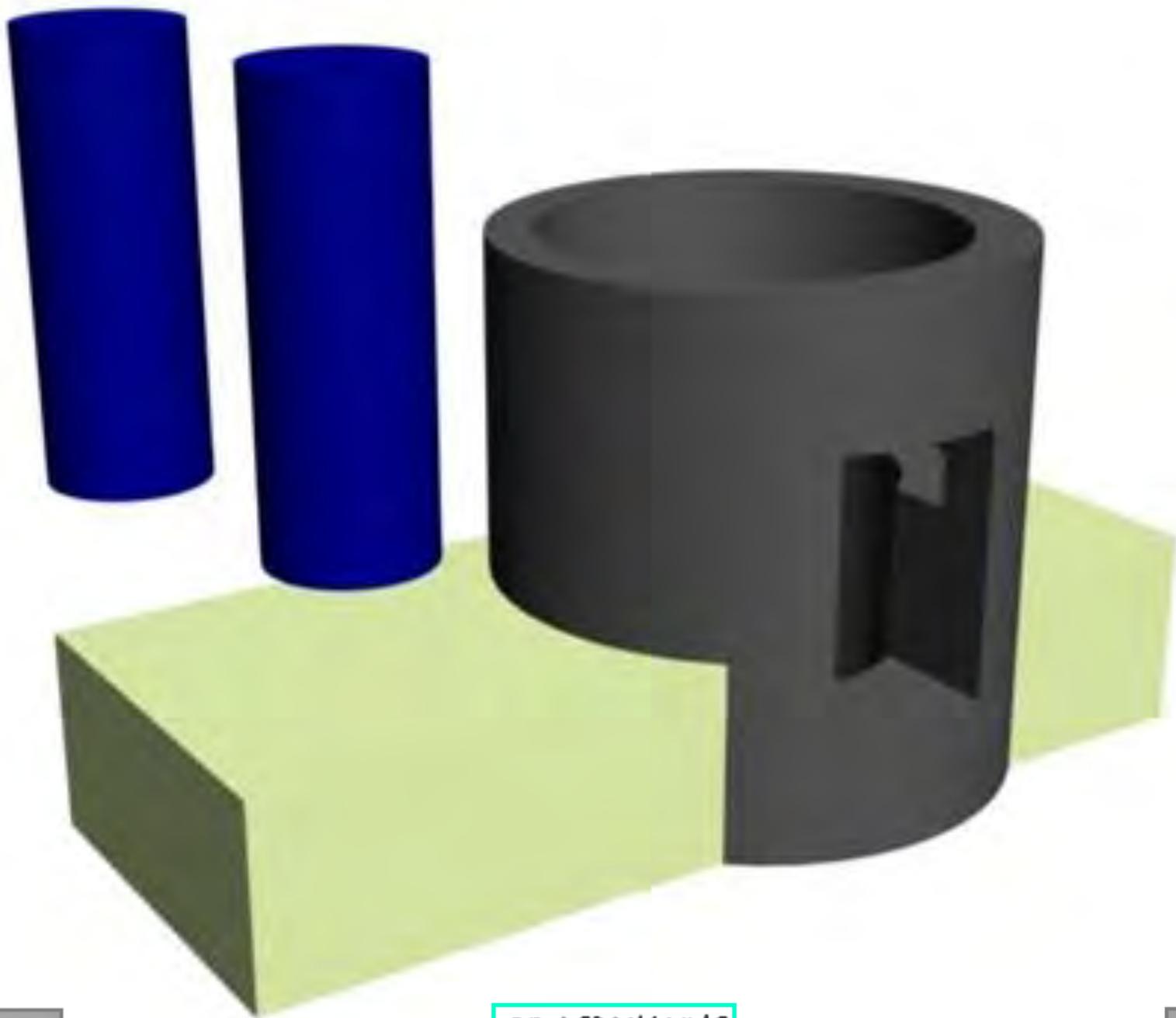


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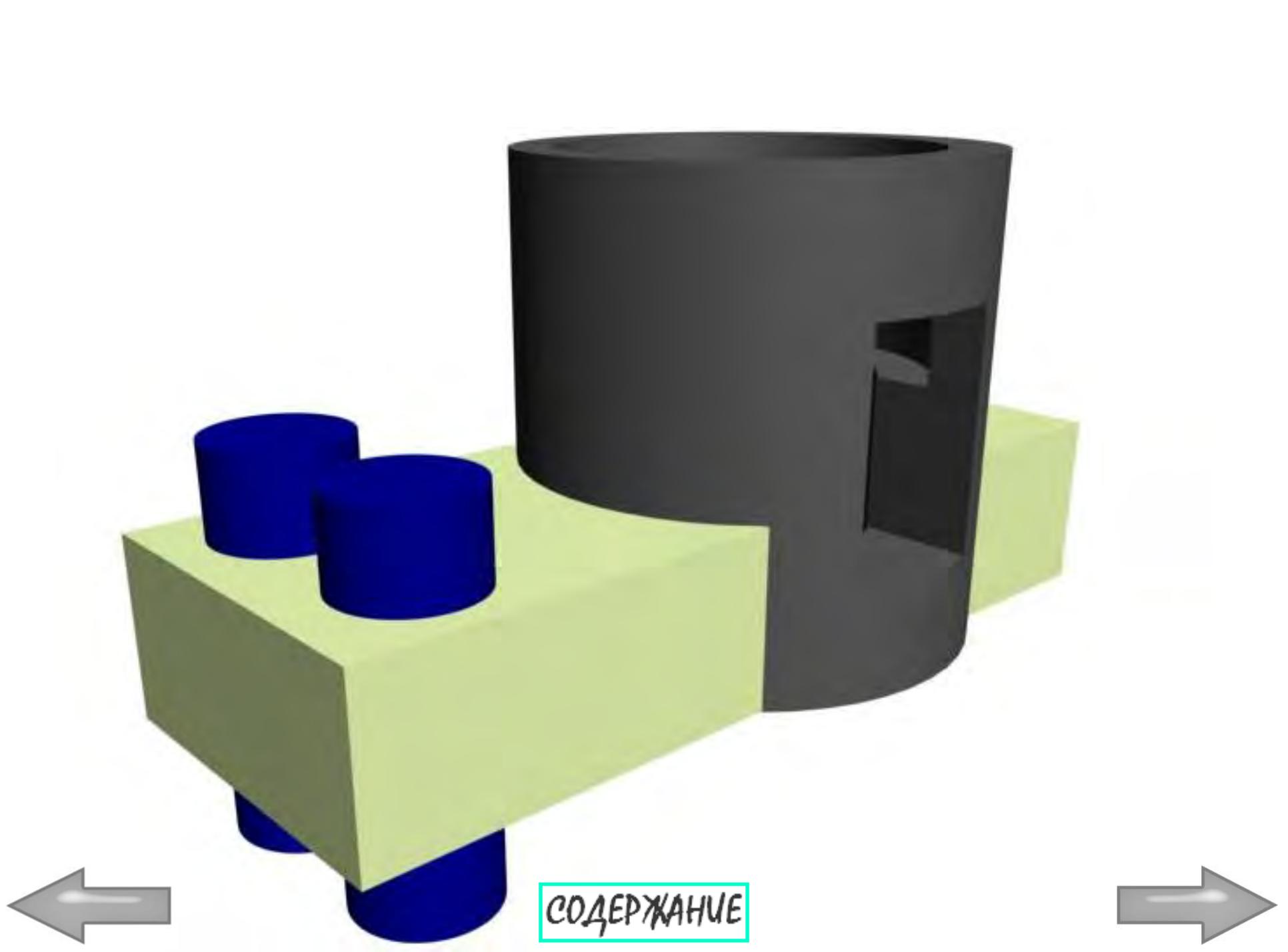


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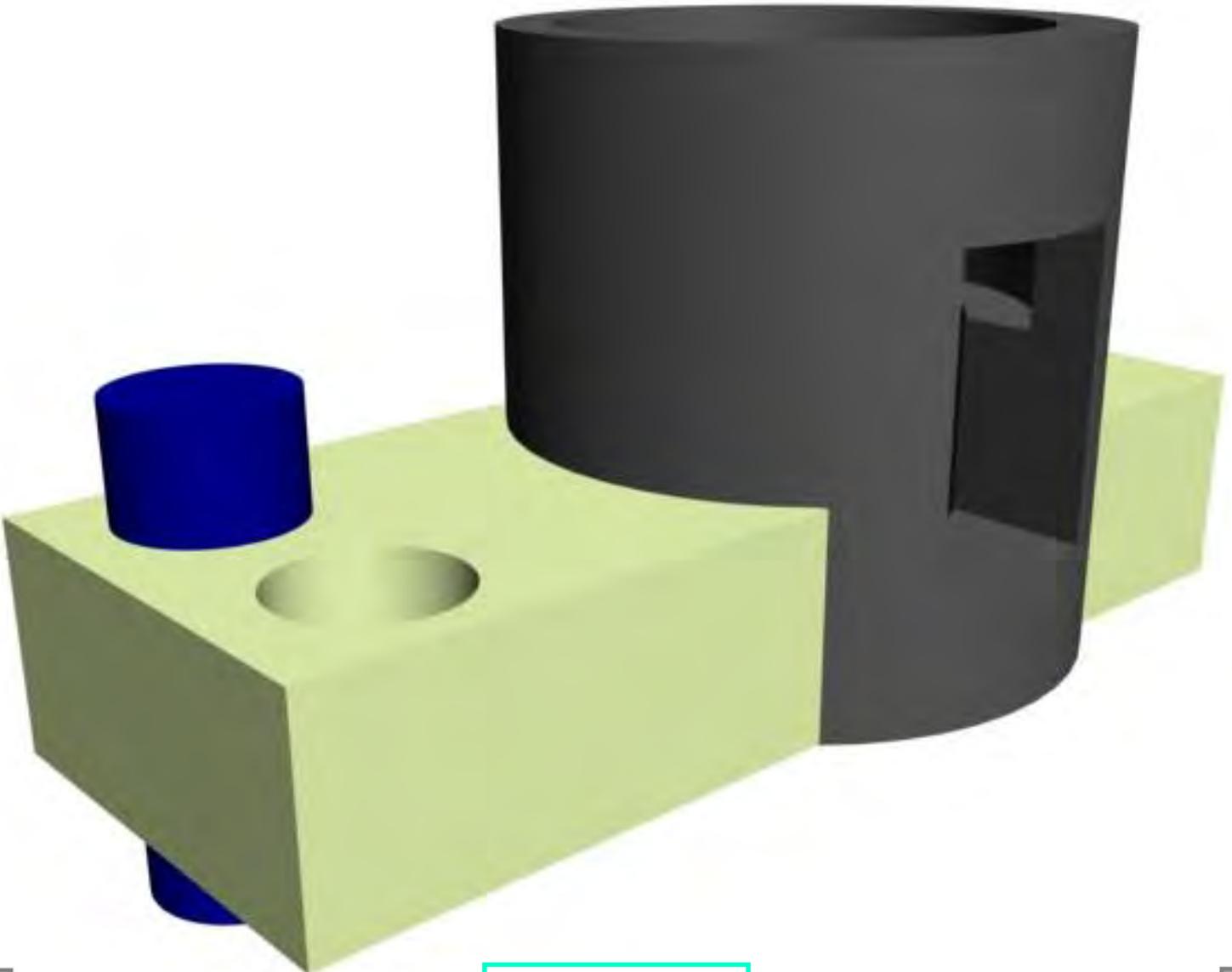




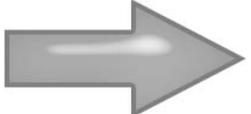
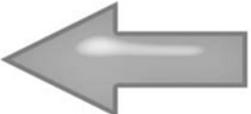
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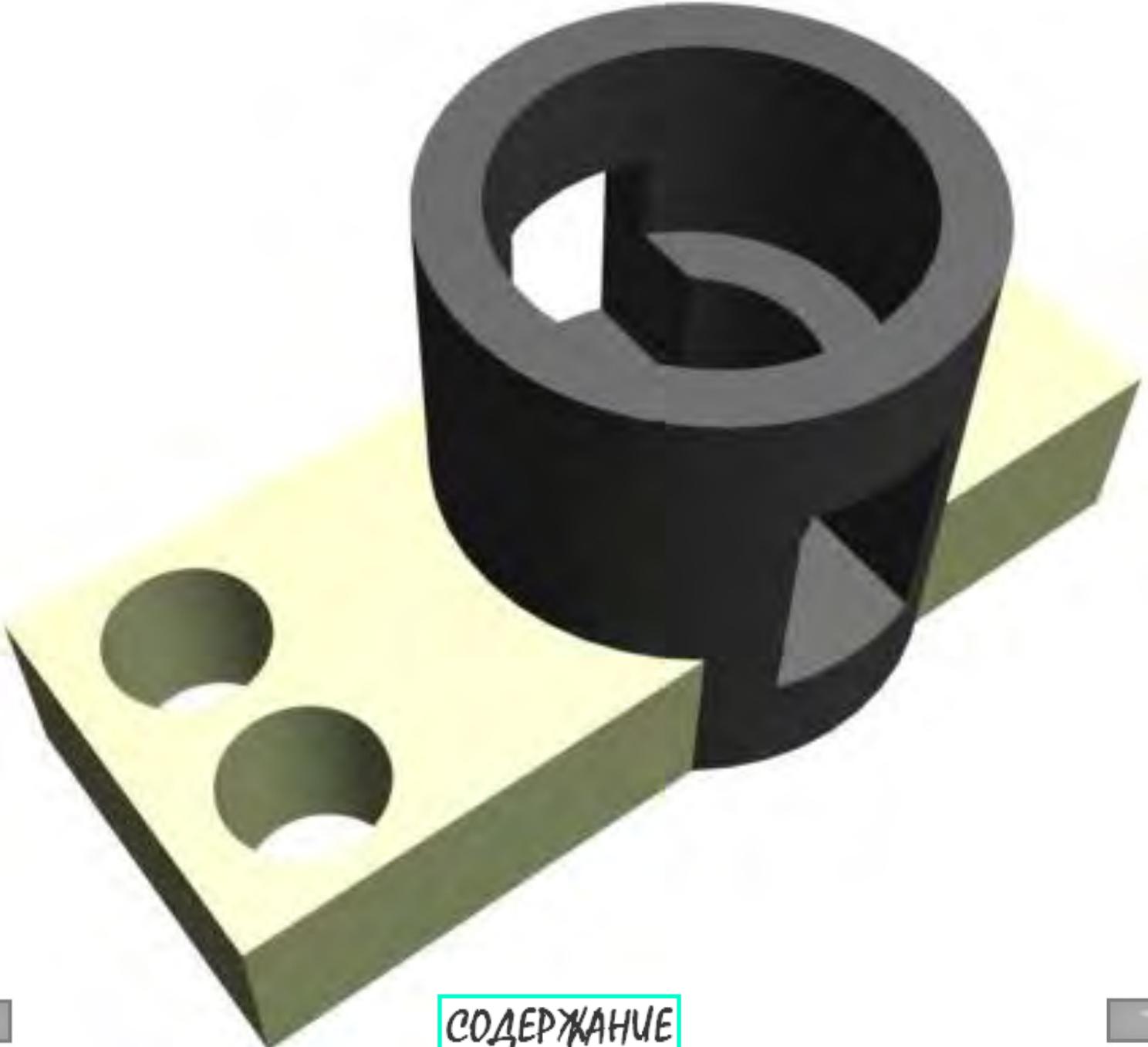


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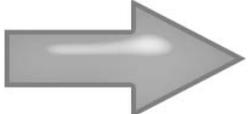
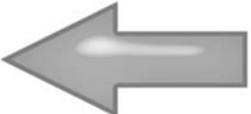


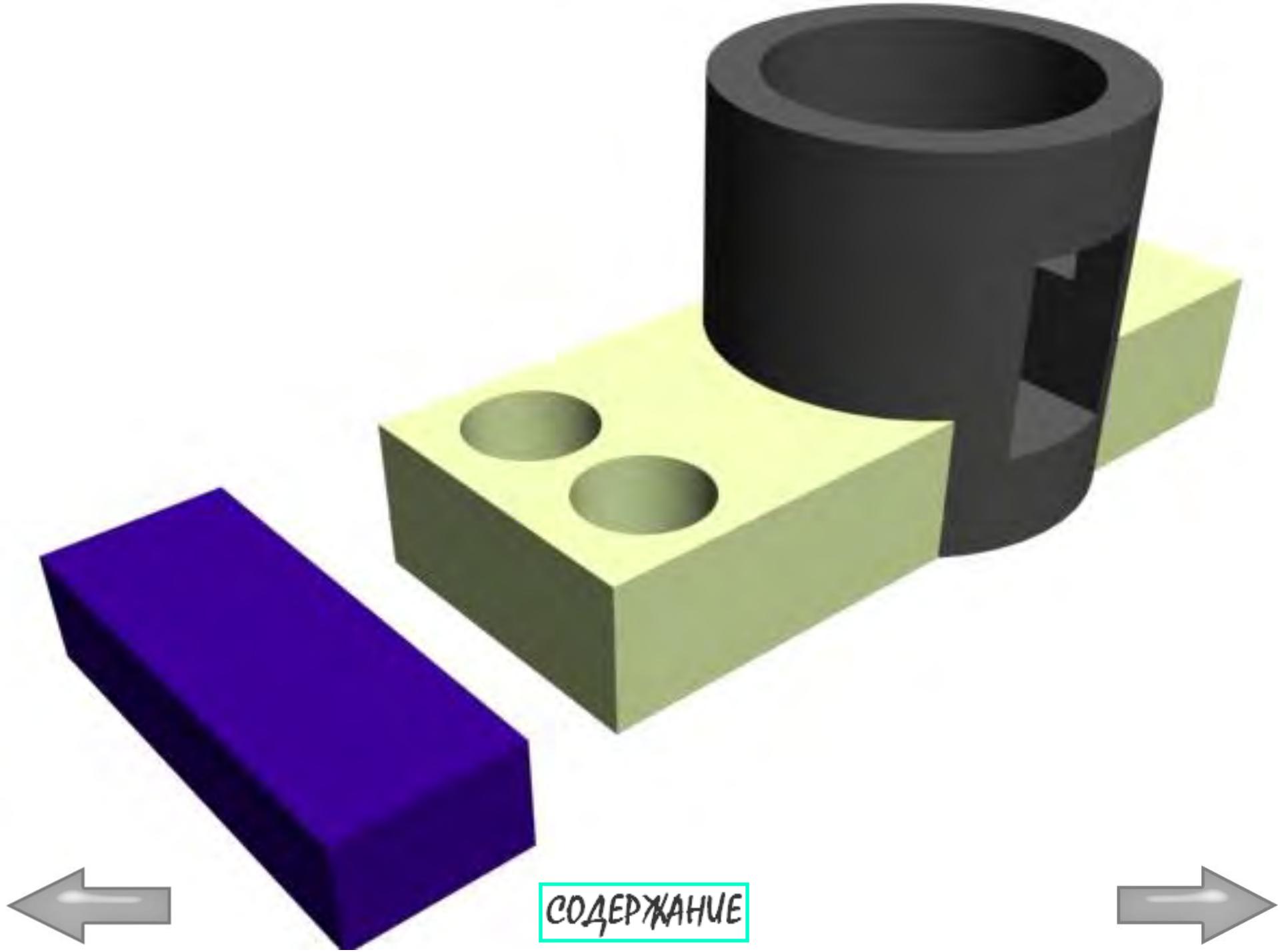
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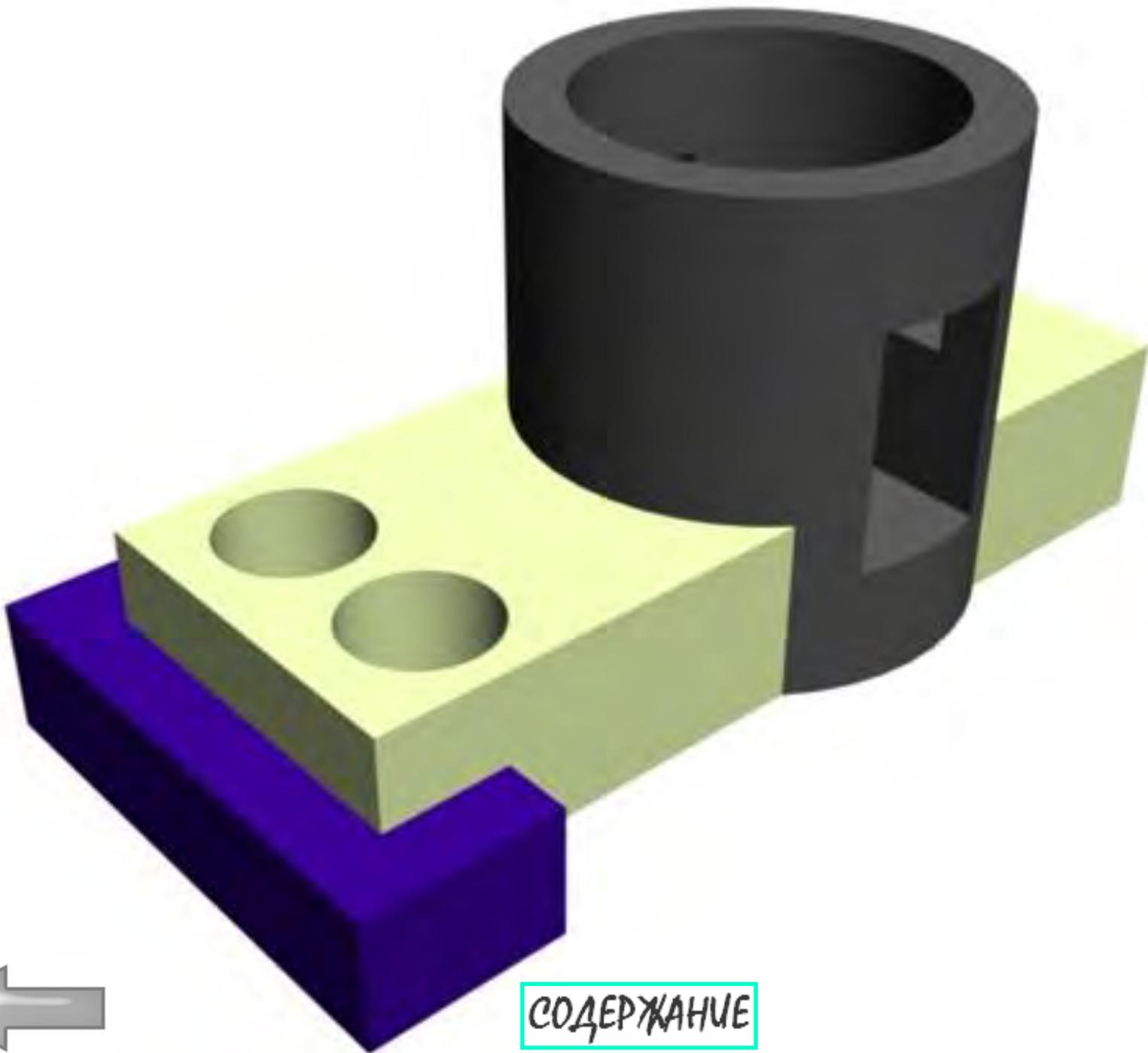


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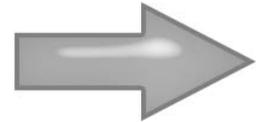
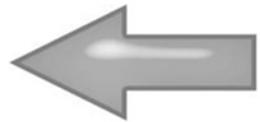


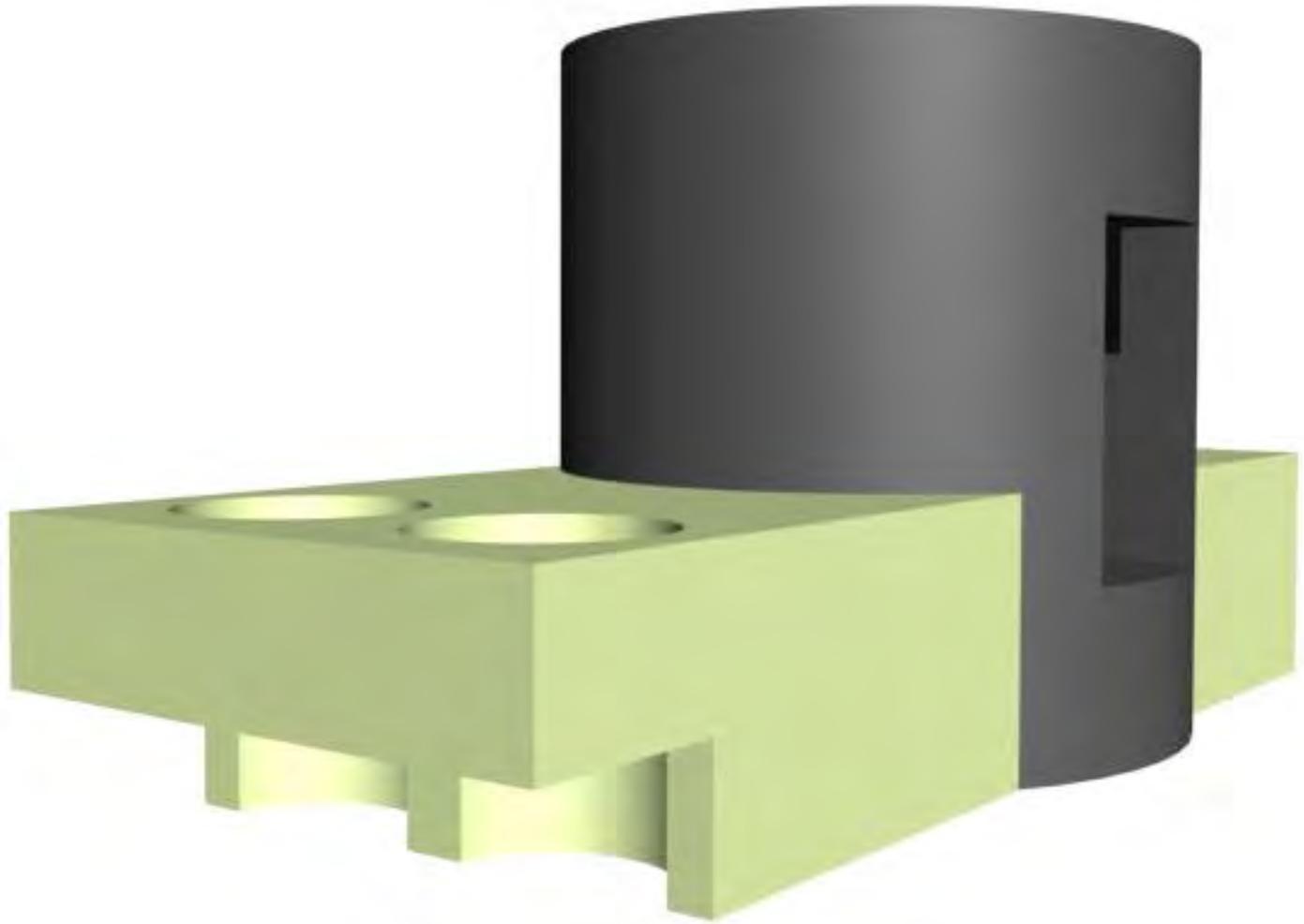


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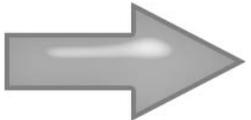
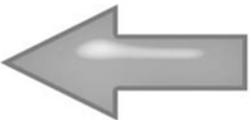


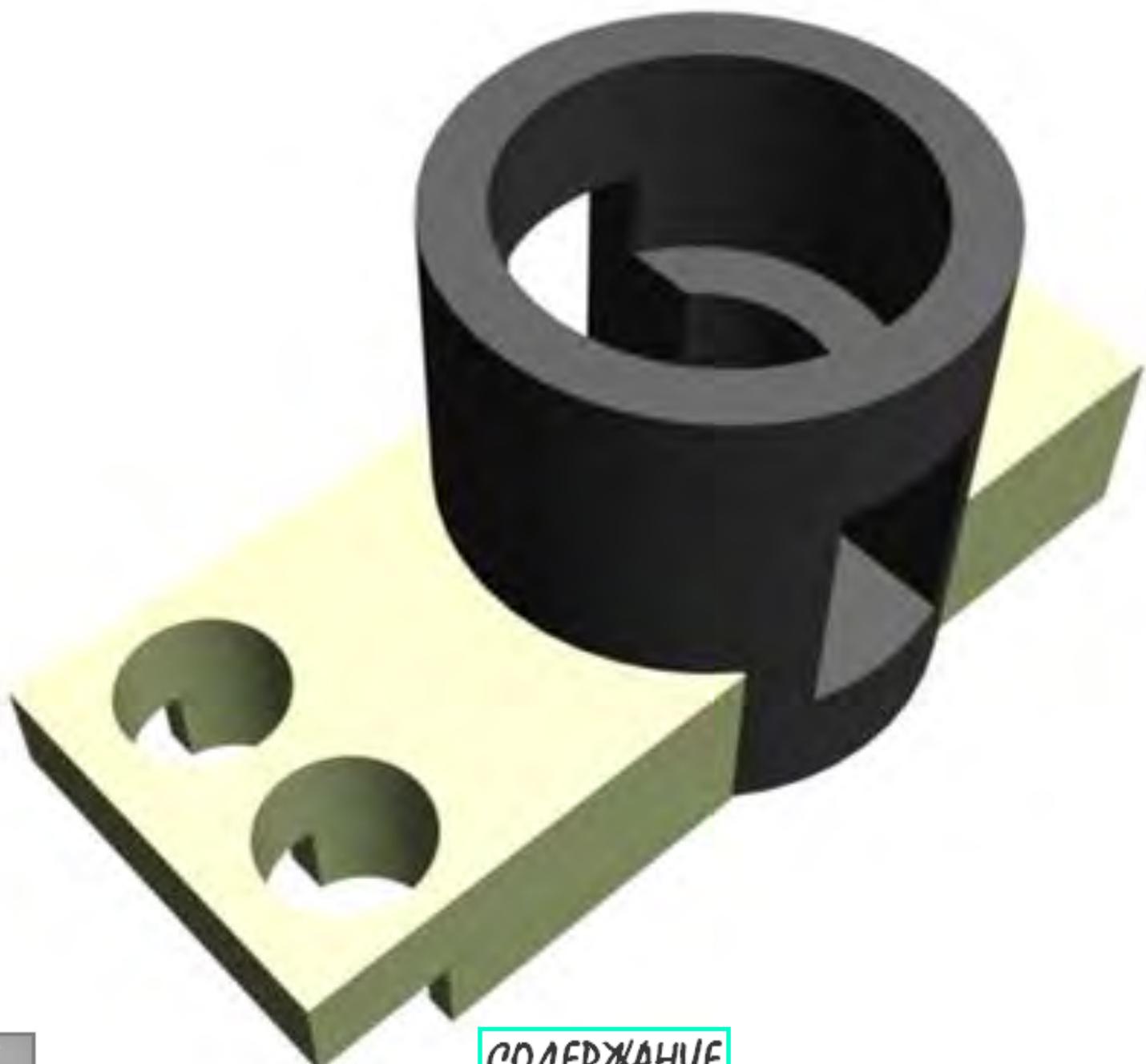
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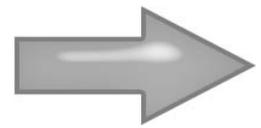
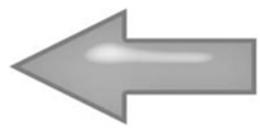


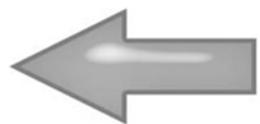
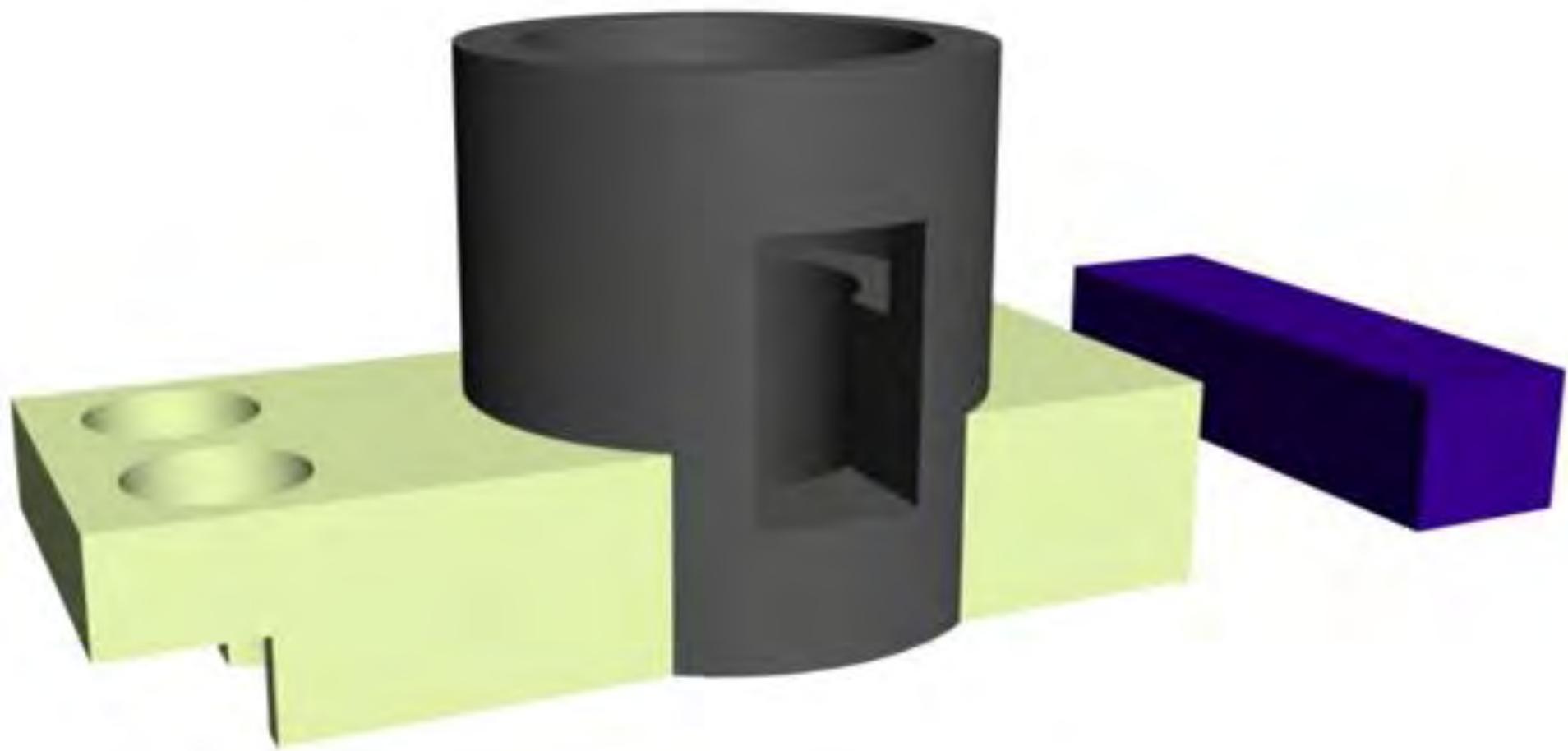
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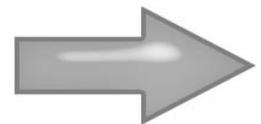


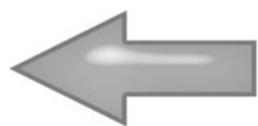
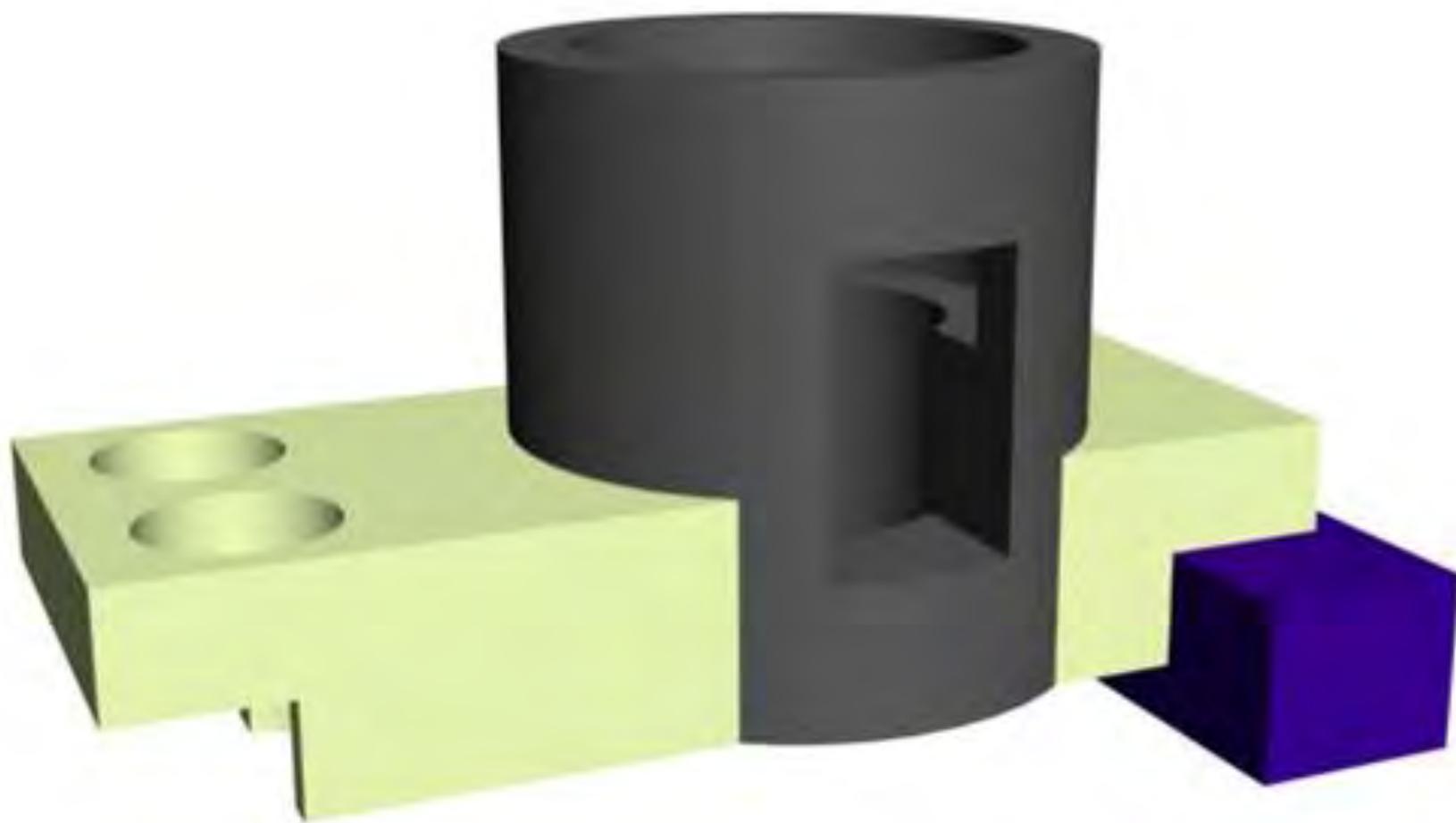
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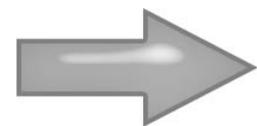


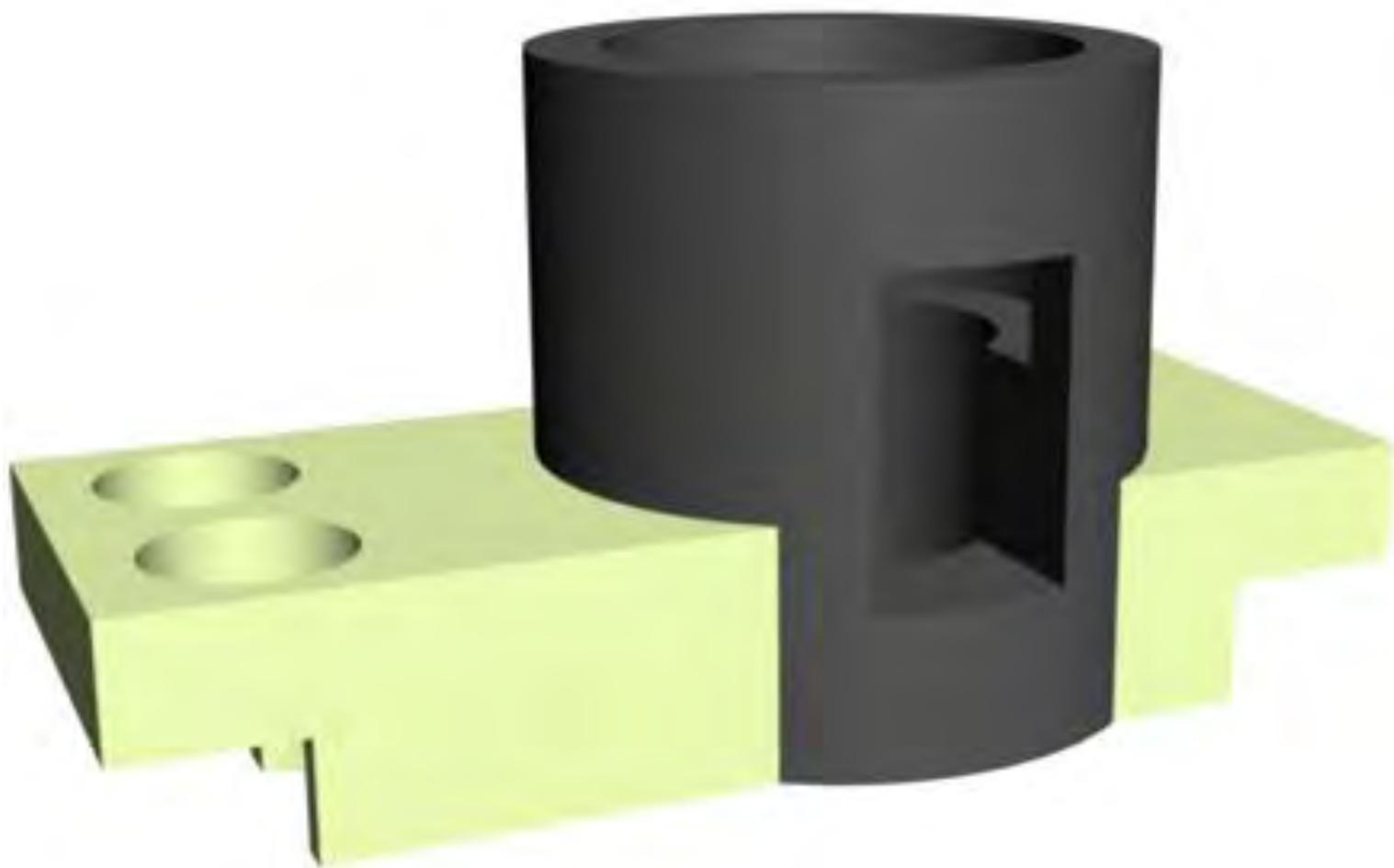
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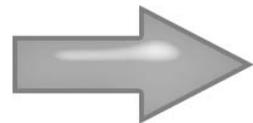
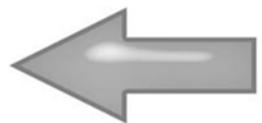


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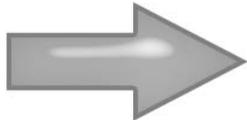
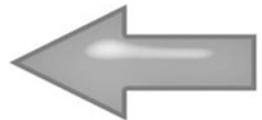


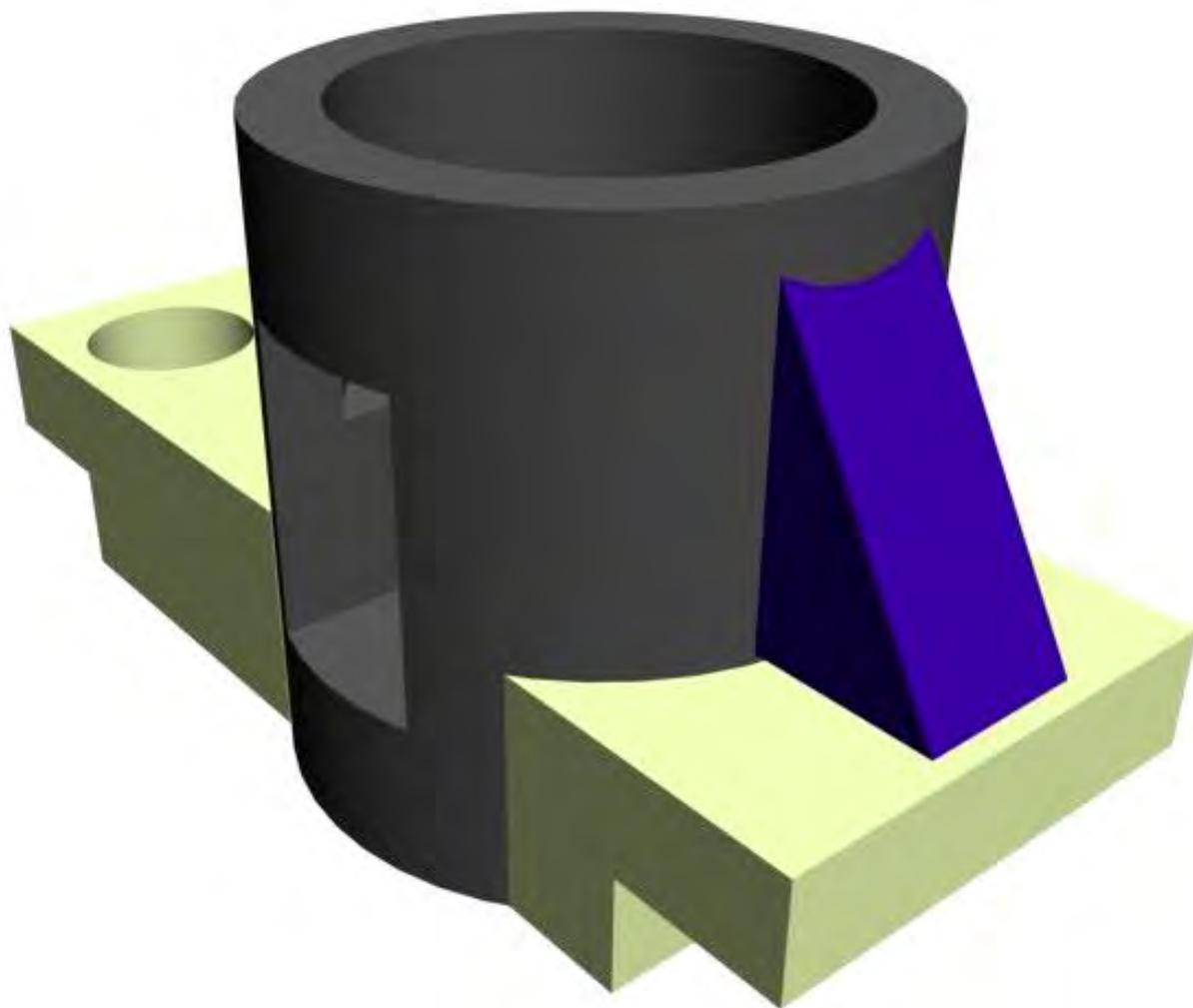


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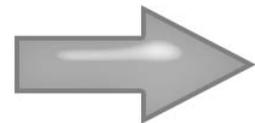
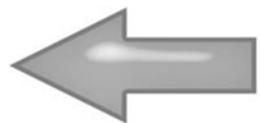


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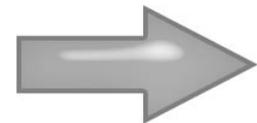
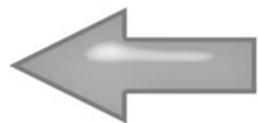


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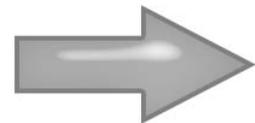
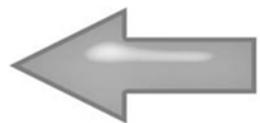


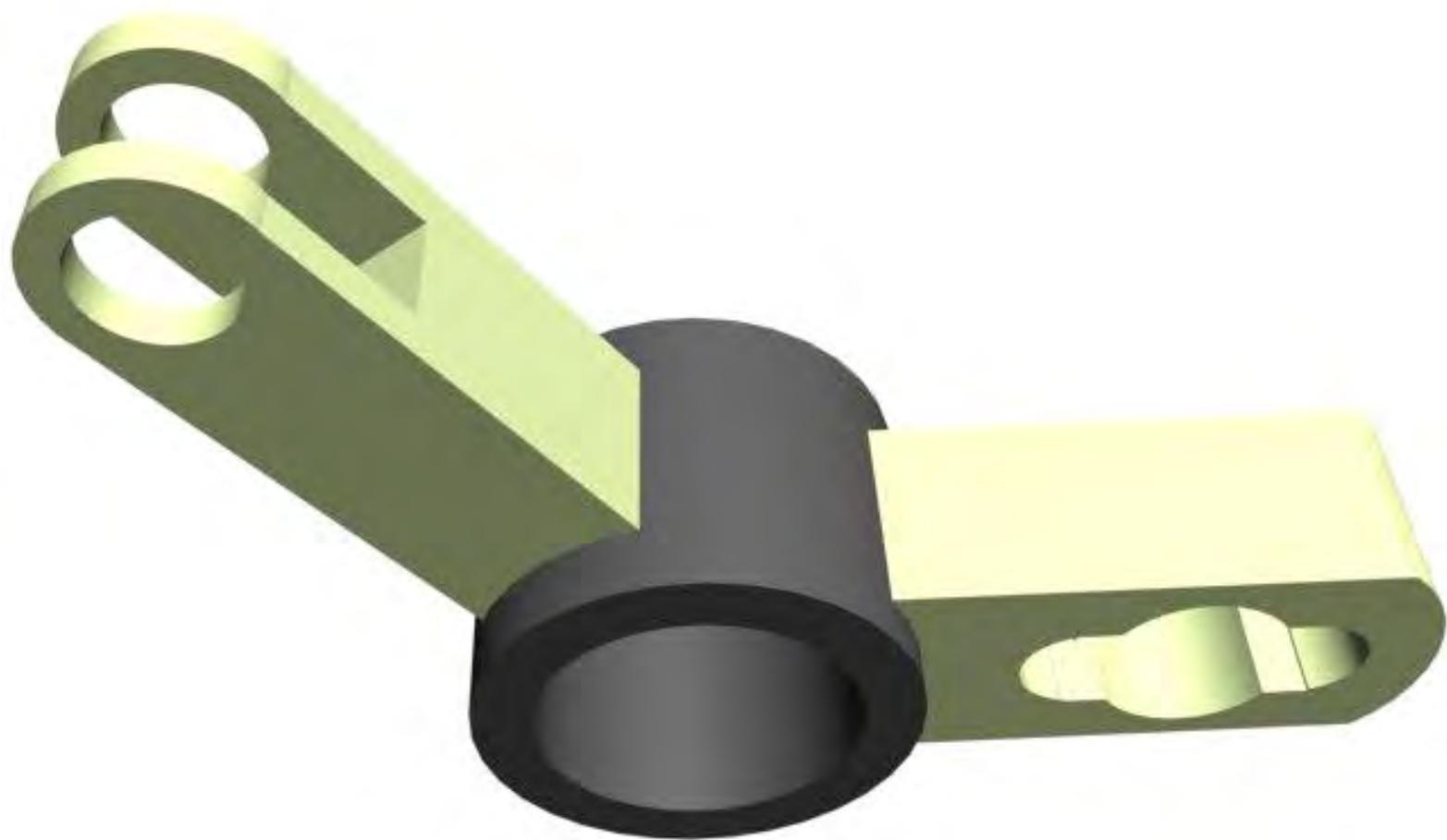
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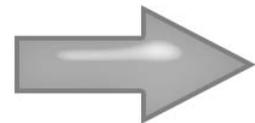
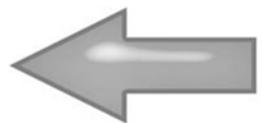


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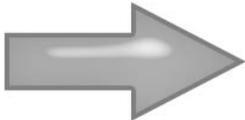
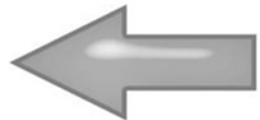


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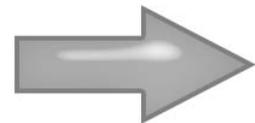
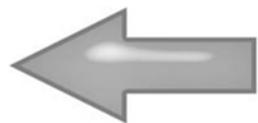


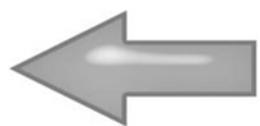
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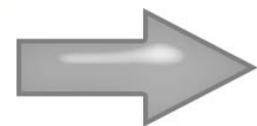


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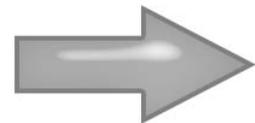
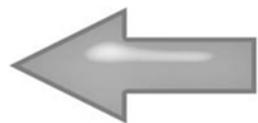


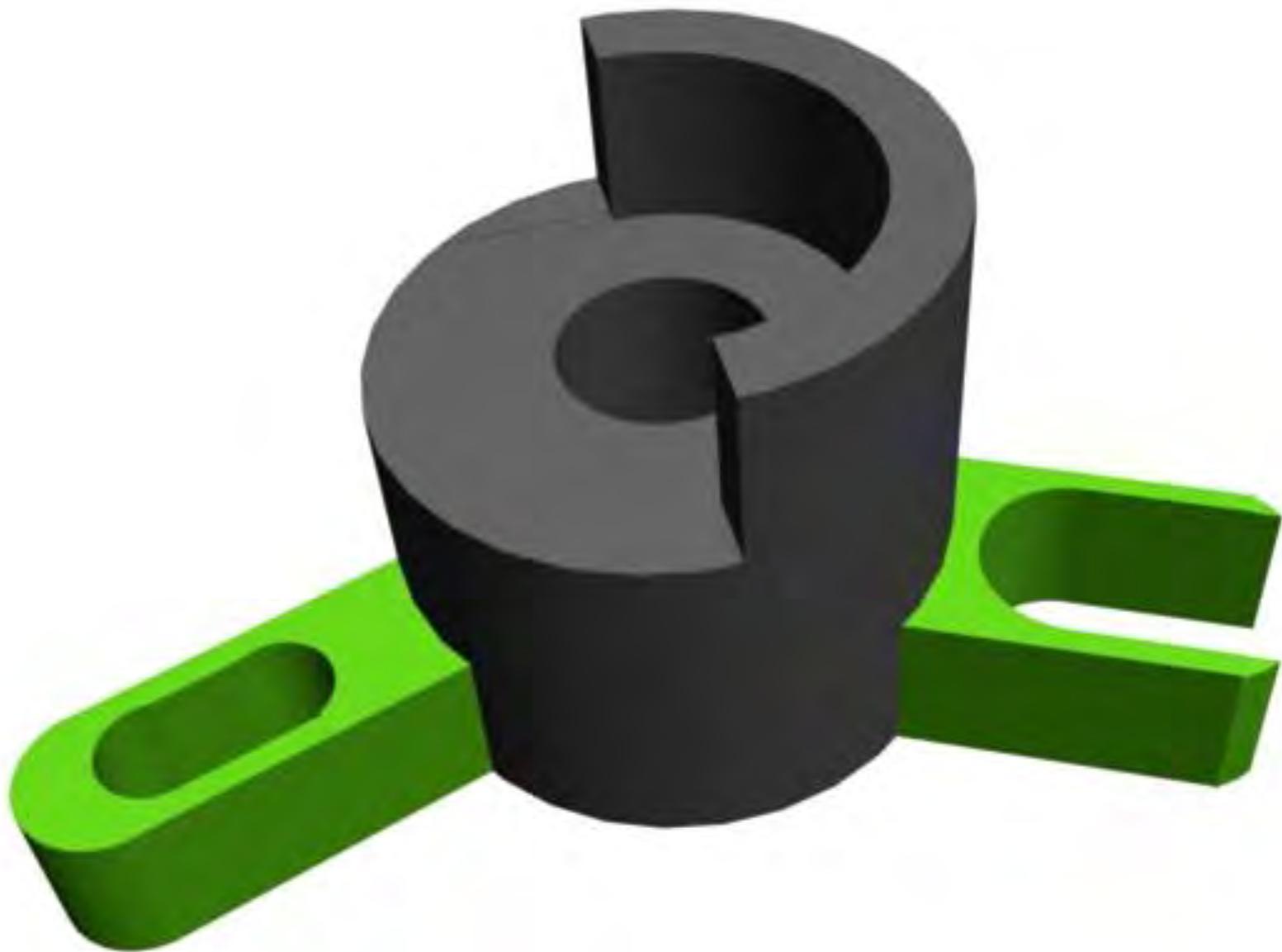
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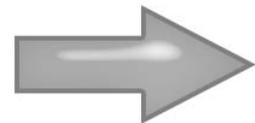


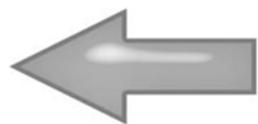
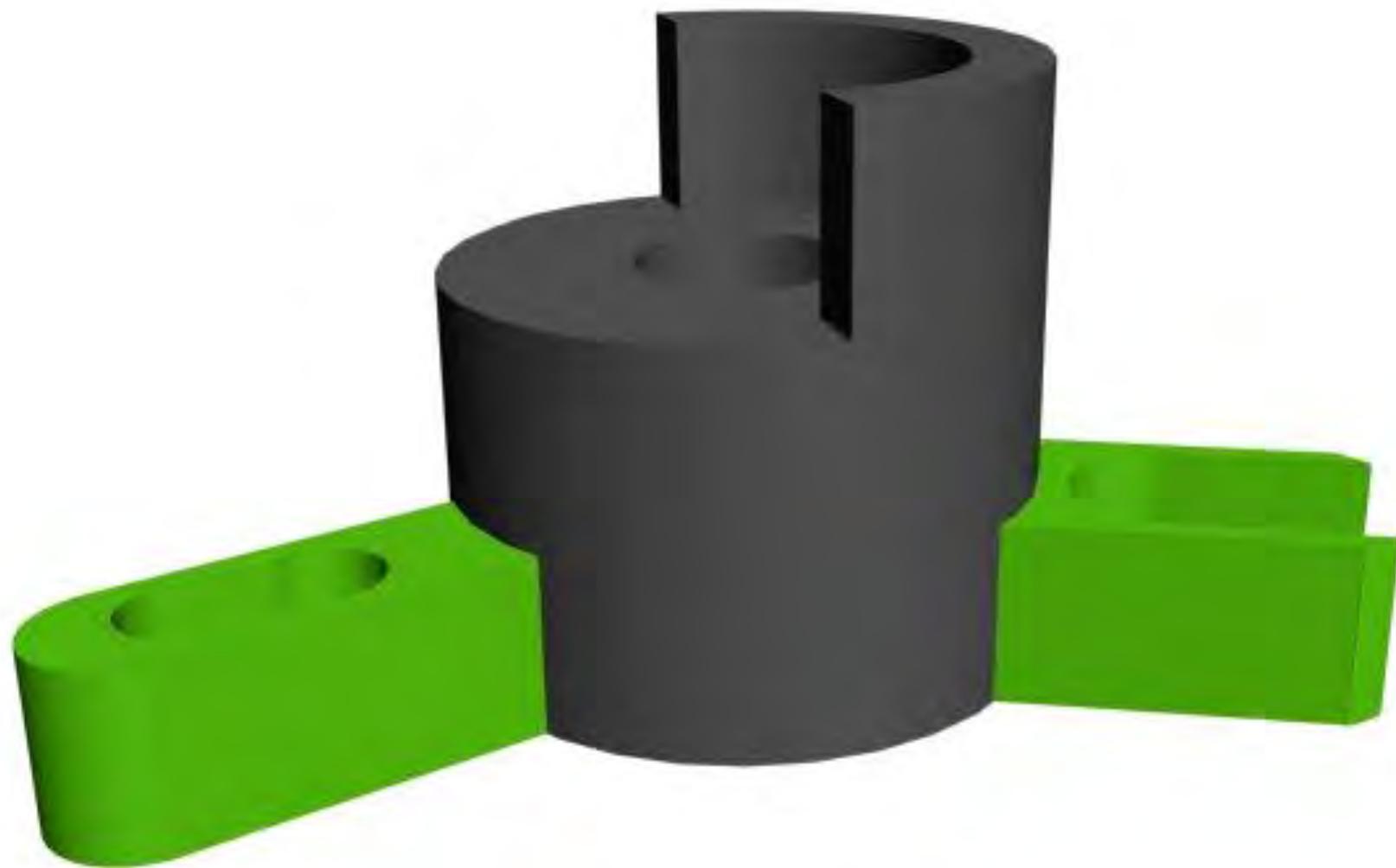
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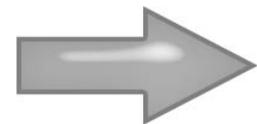


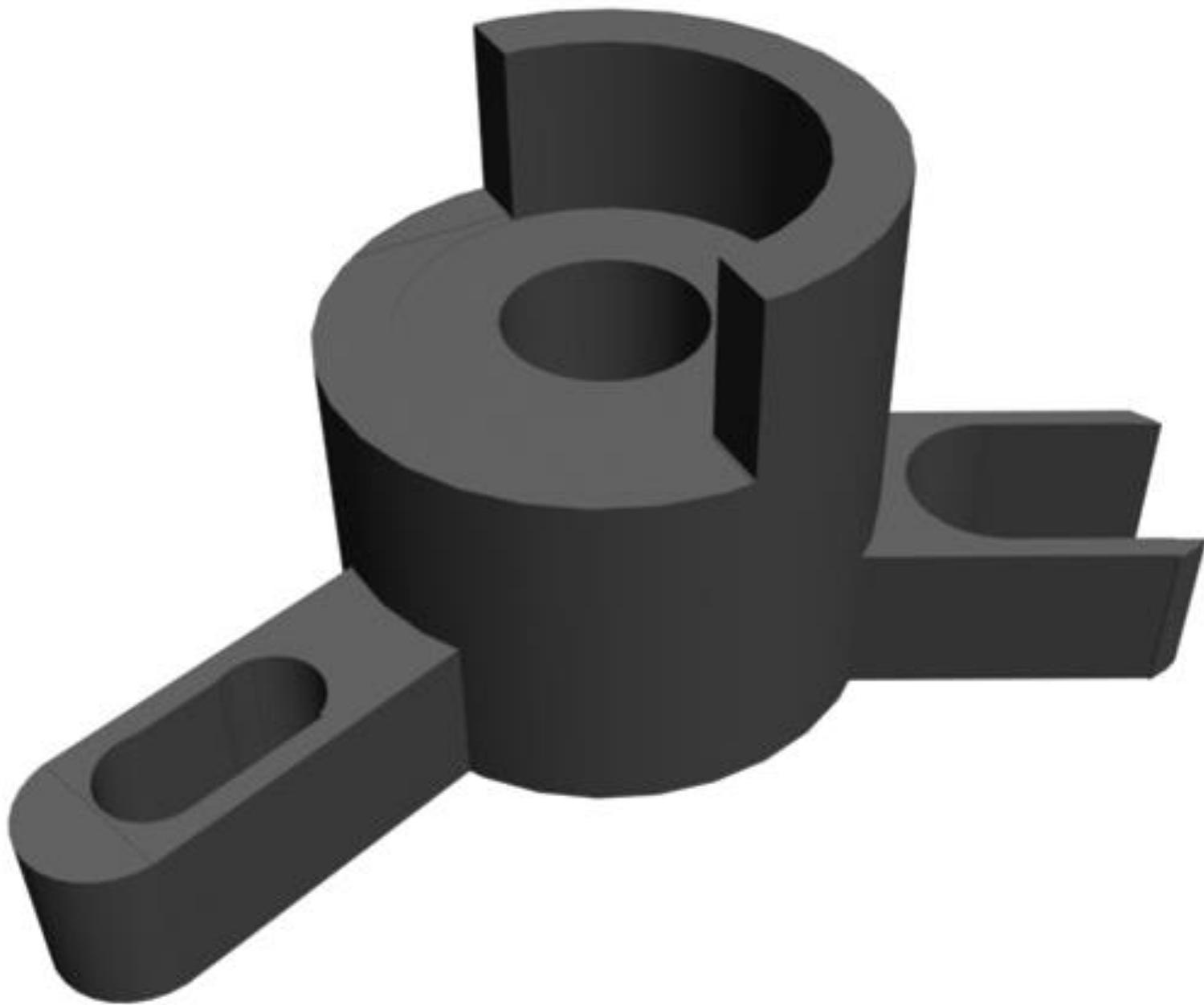
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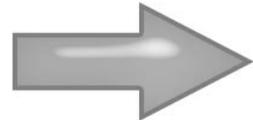


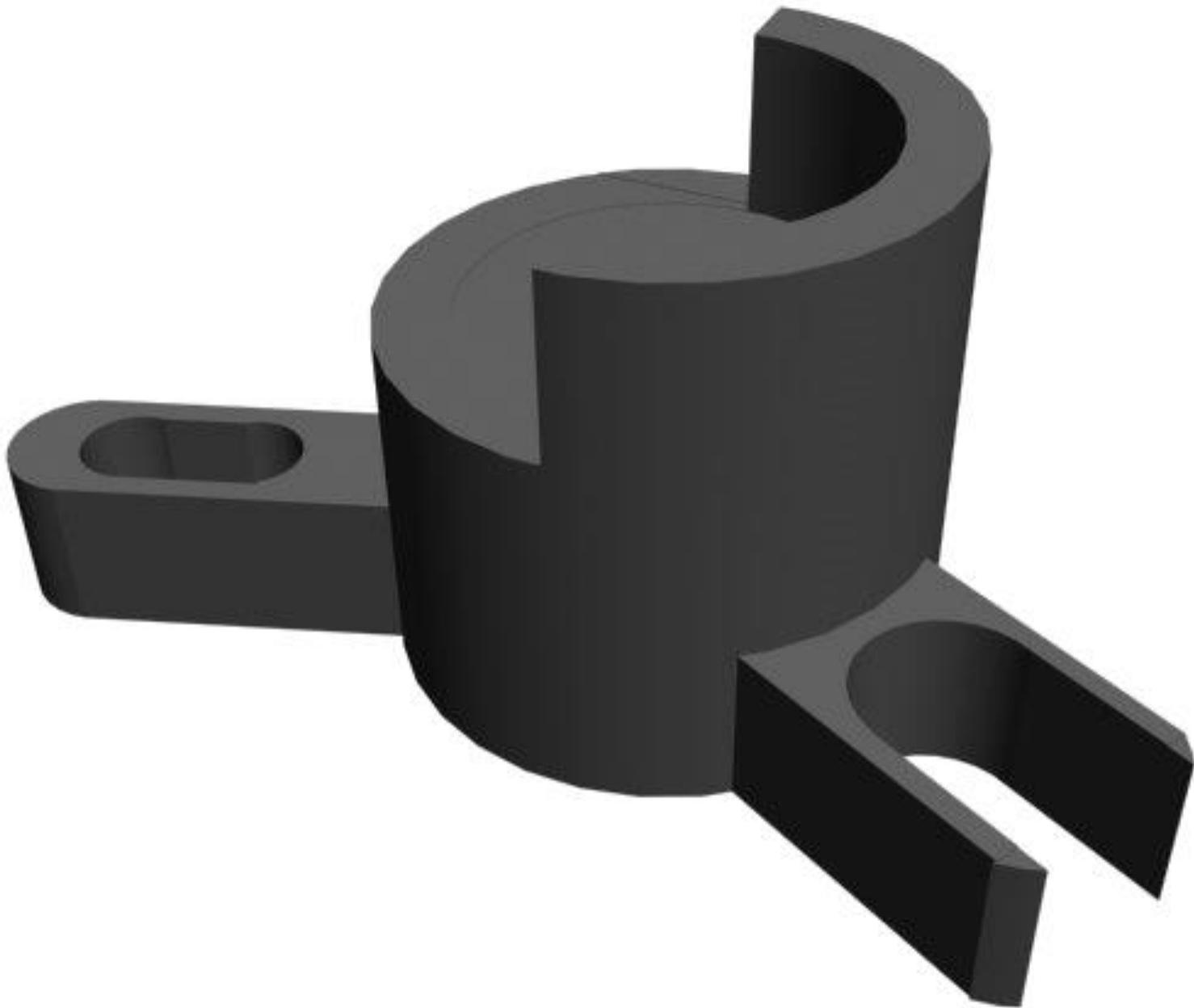
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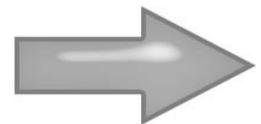
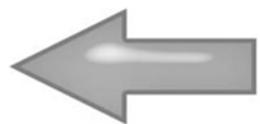


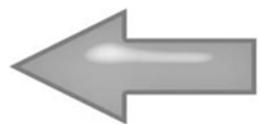
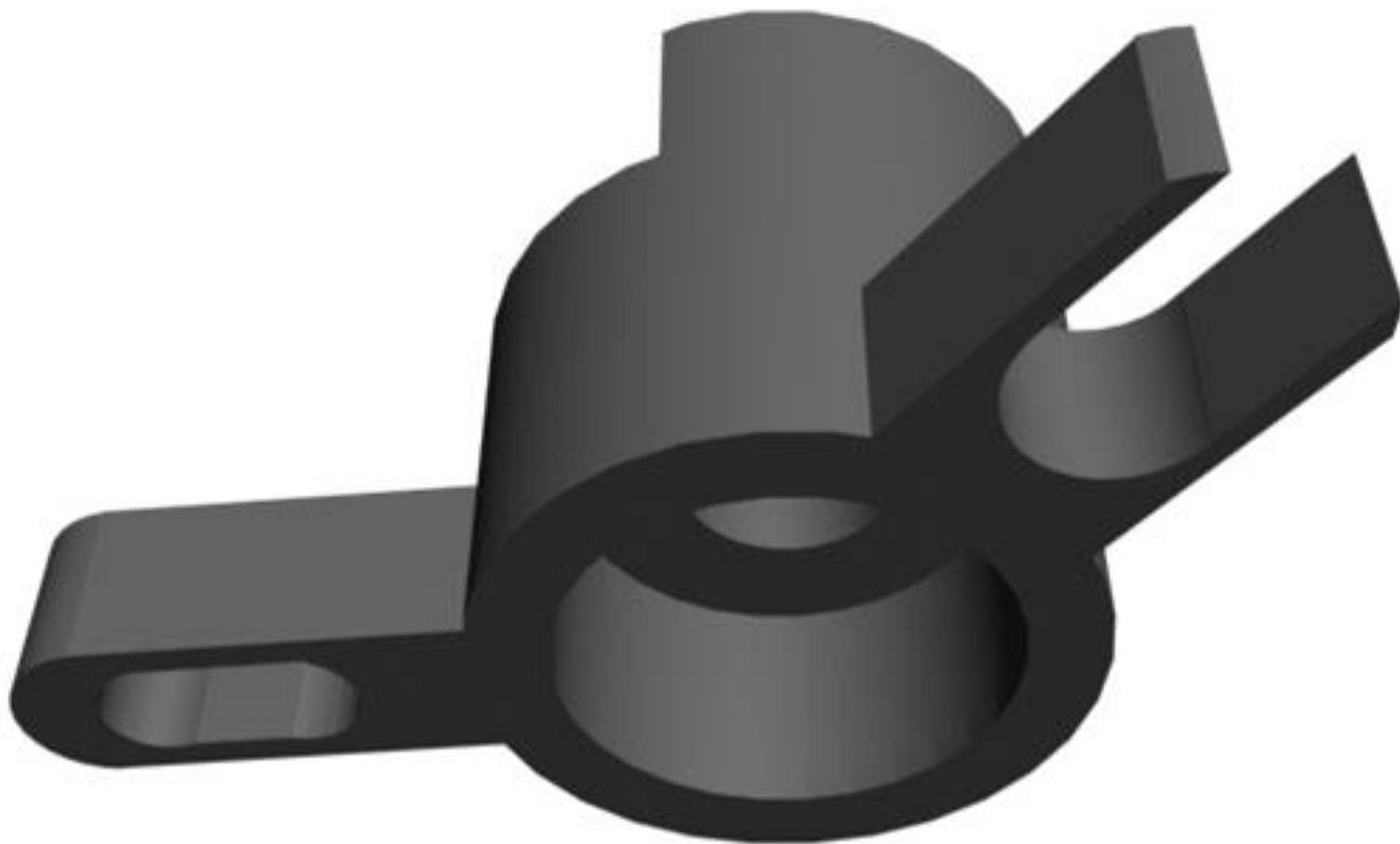
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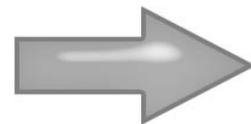


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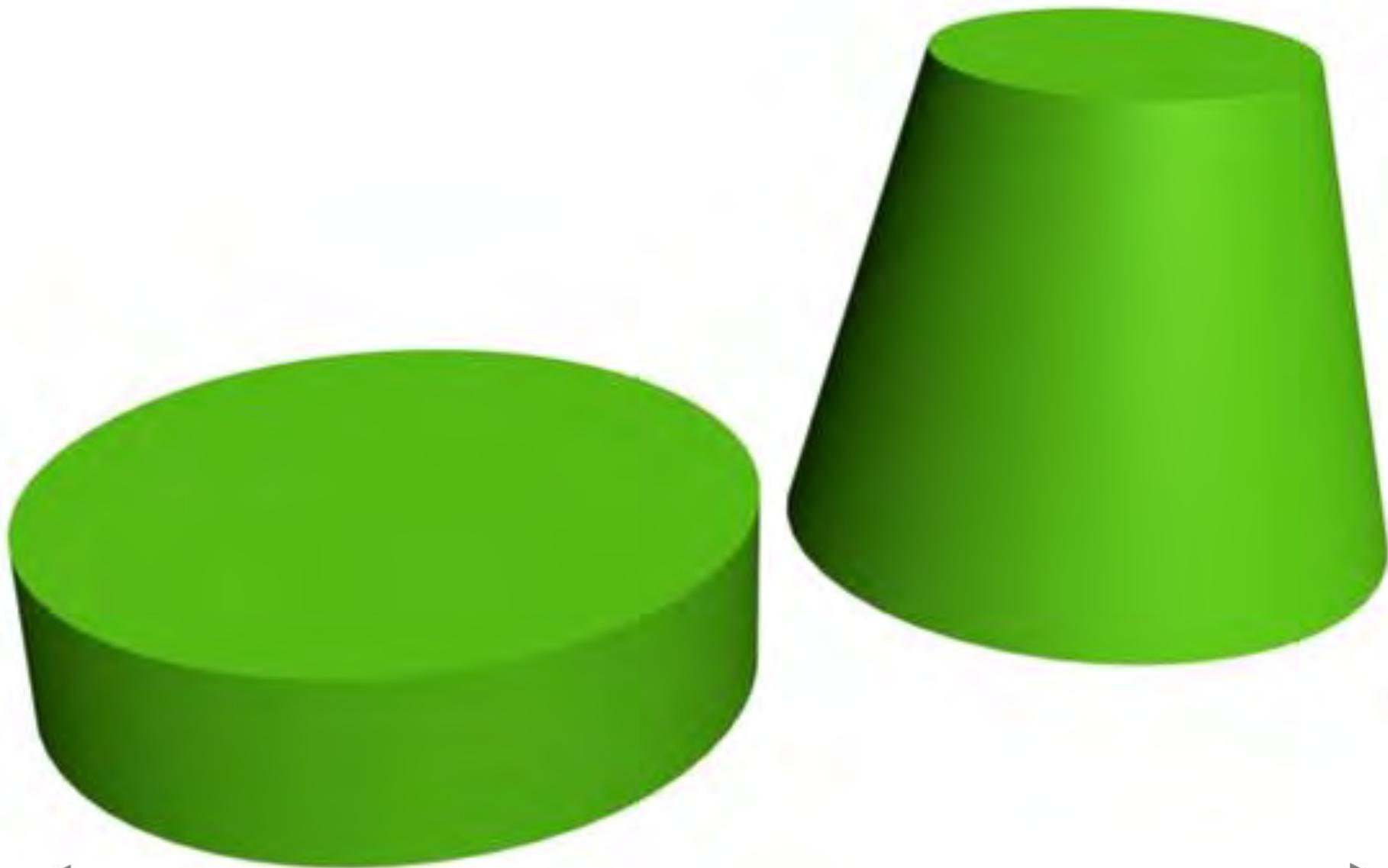




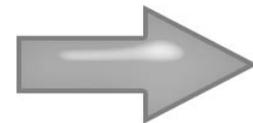
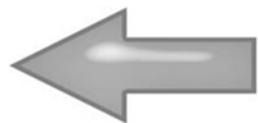
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Задача № 5. МОДЕЛЬ СО СКВОЗНЫМИ ОТВЕРСТИЯМИ

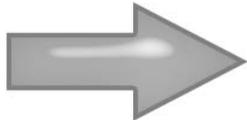
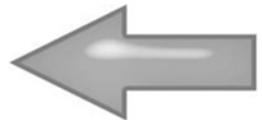


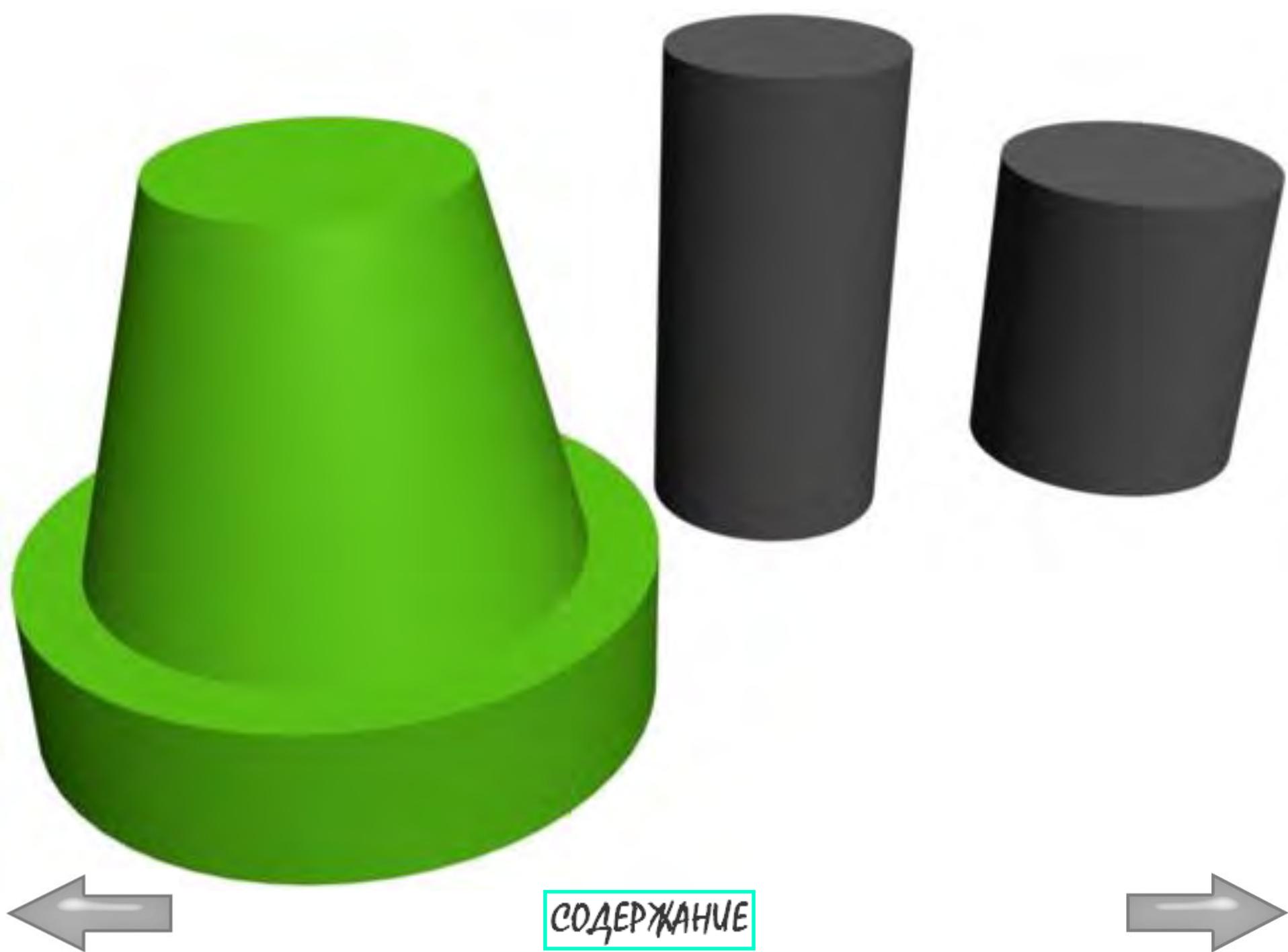
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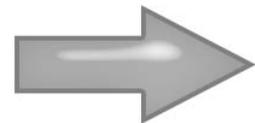
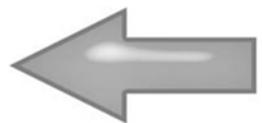
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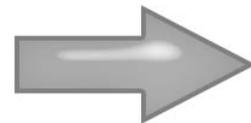
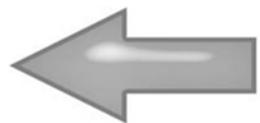


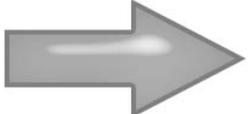
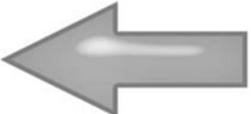
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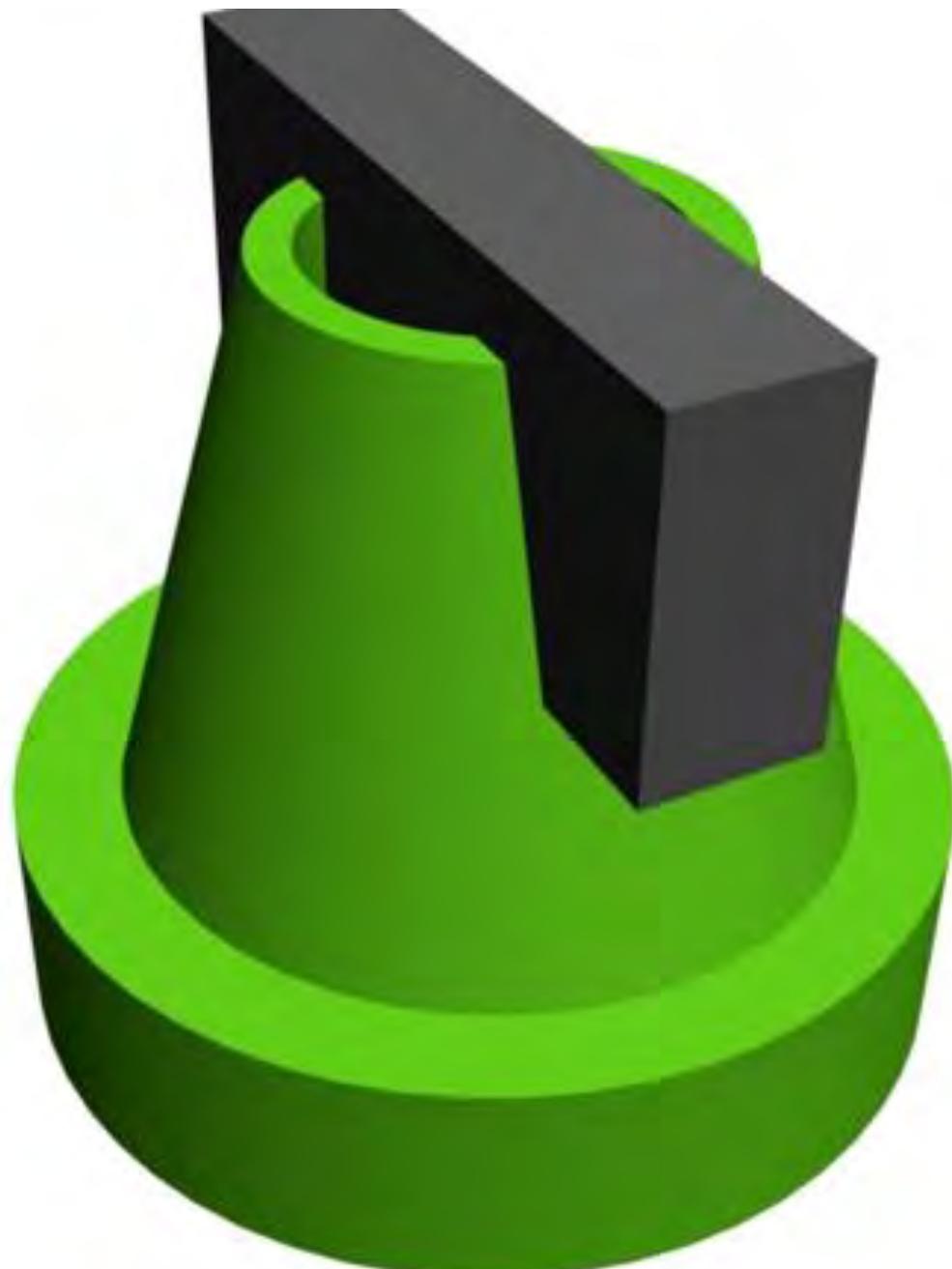


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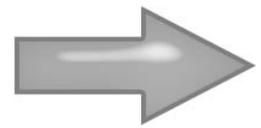
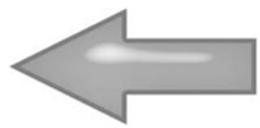


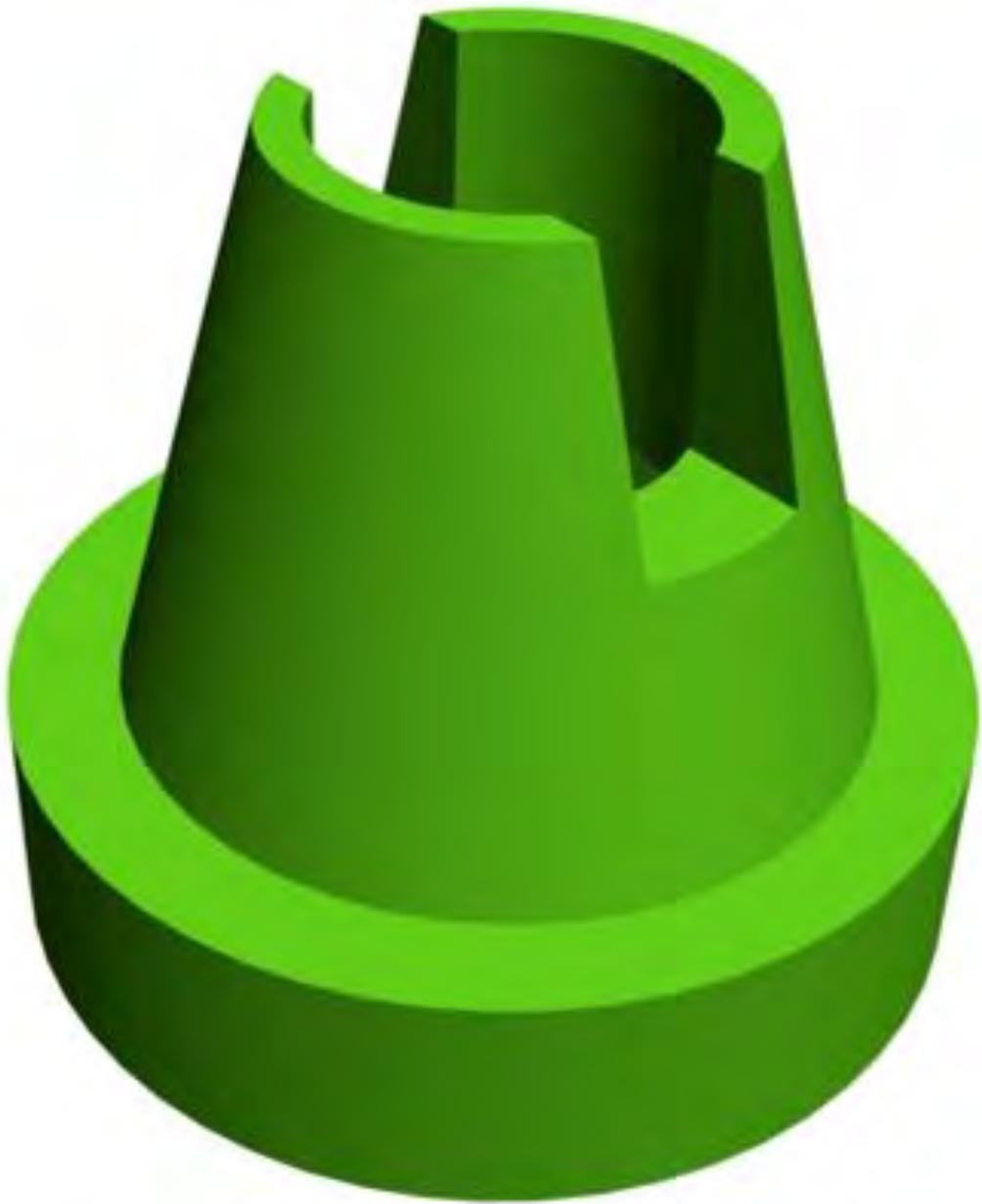


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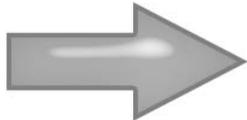
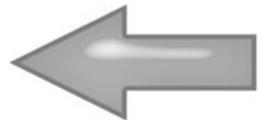


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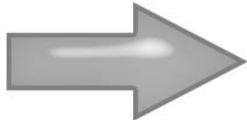
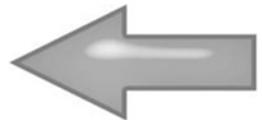


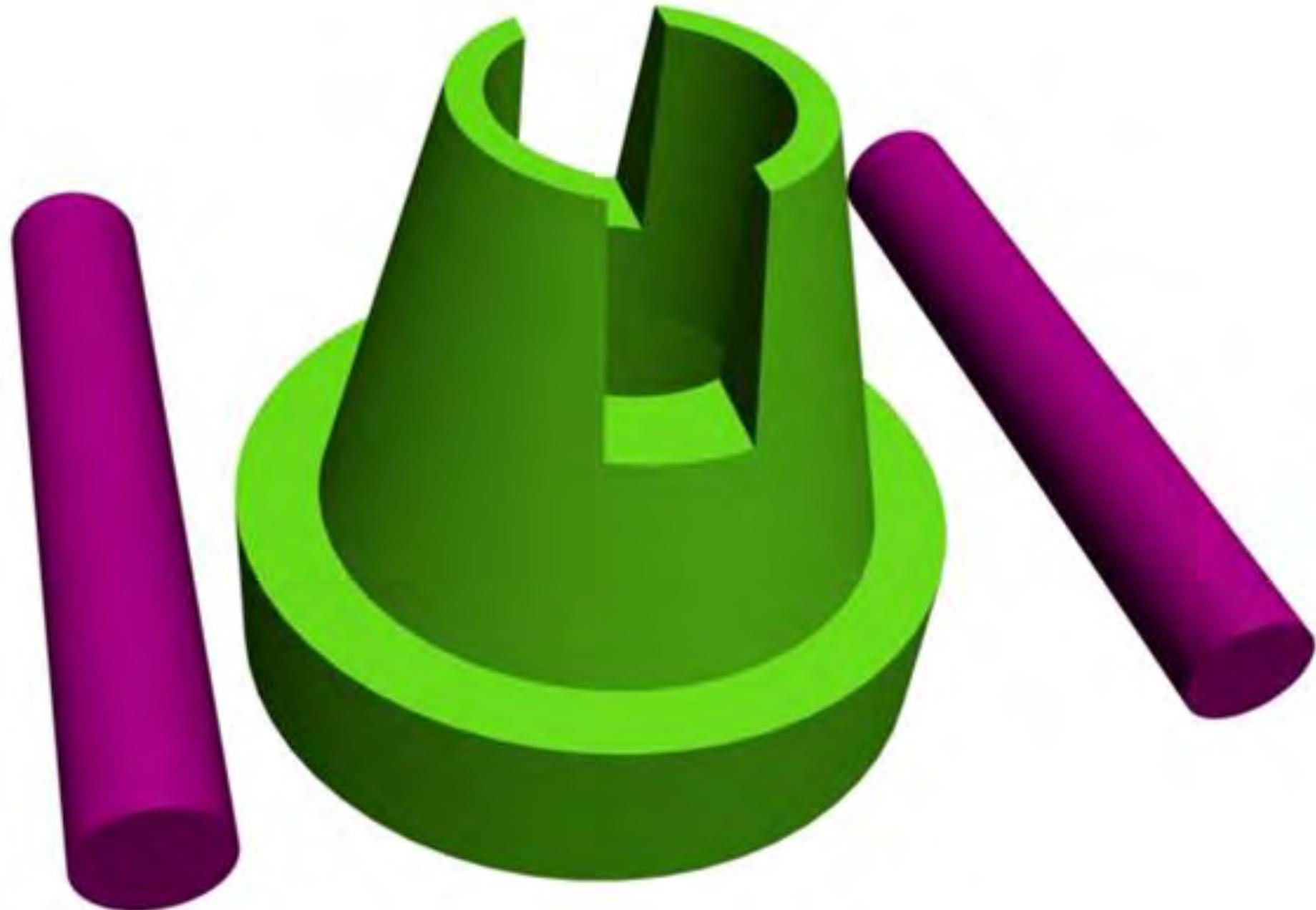
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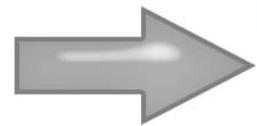
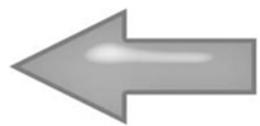


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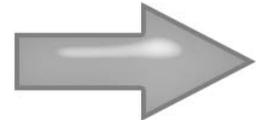
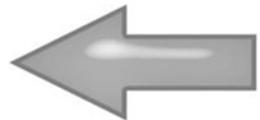




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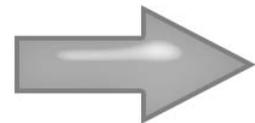
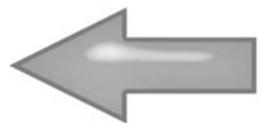


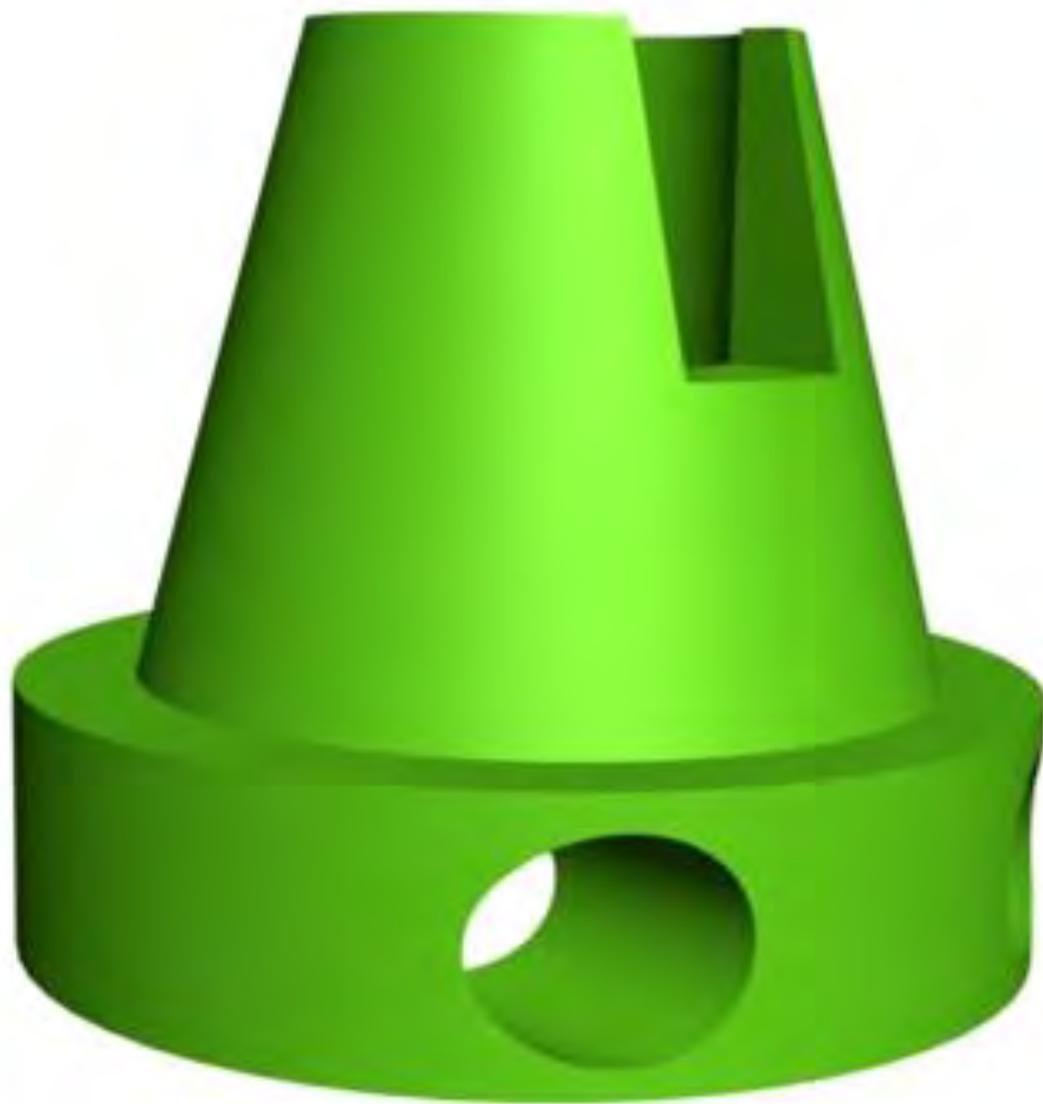
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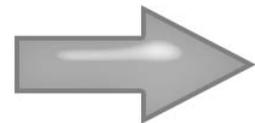
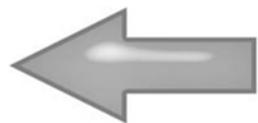


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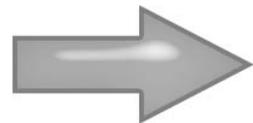
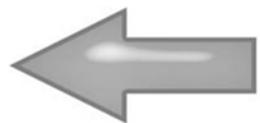


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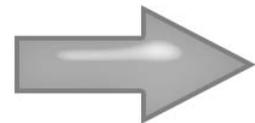
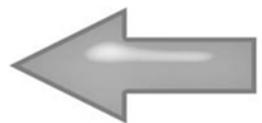


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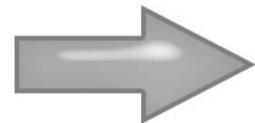
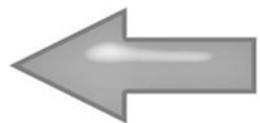


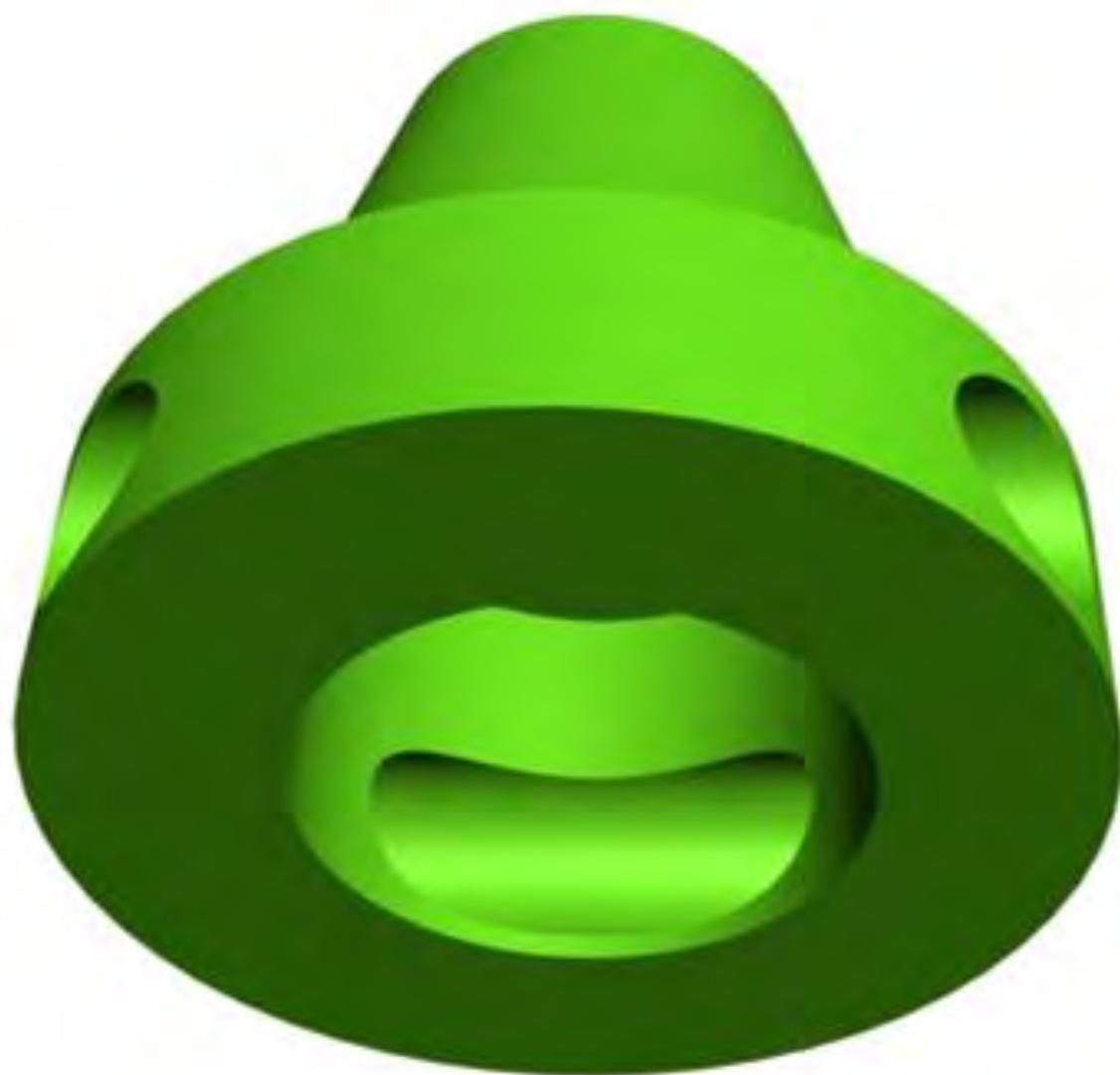
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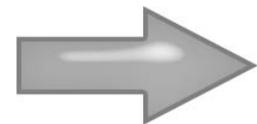
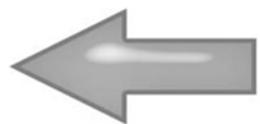


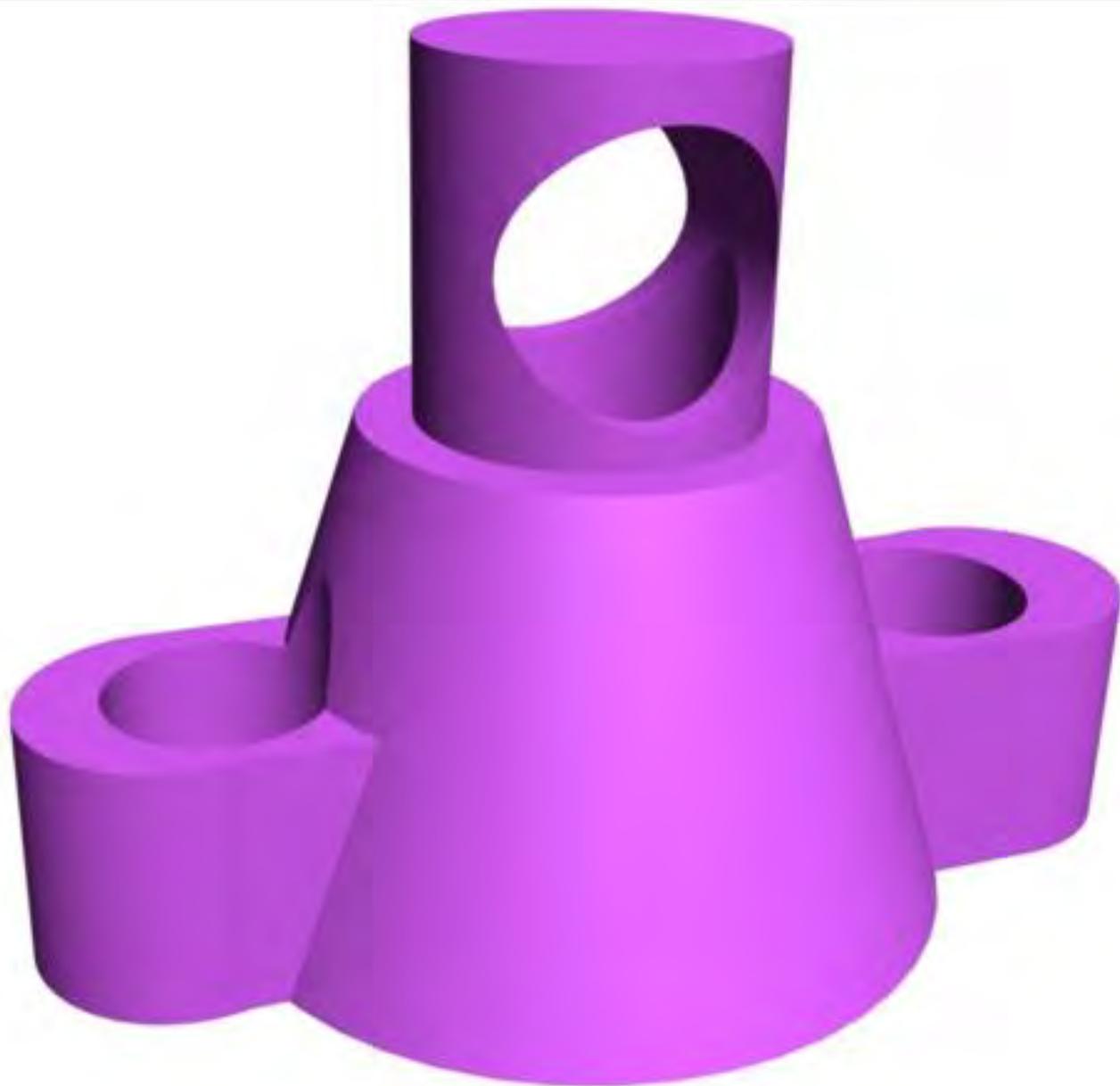
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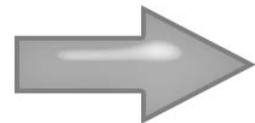
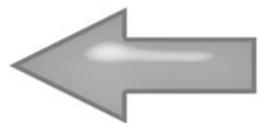


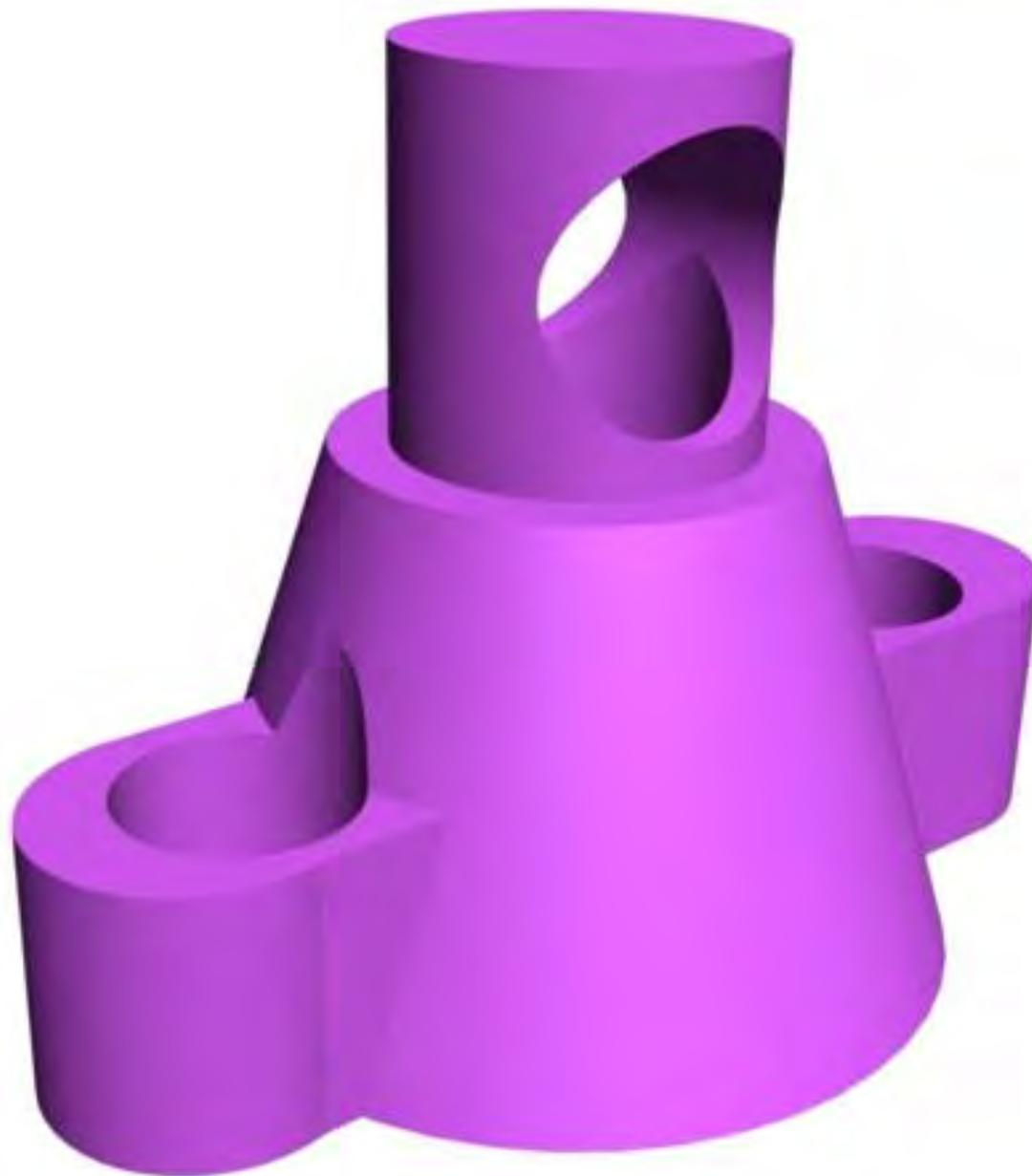
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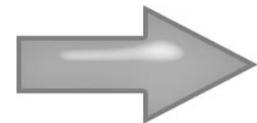
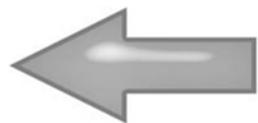


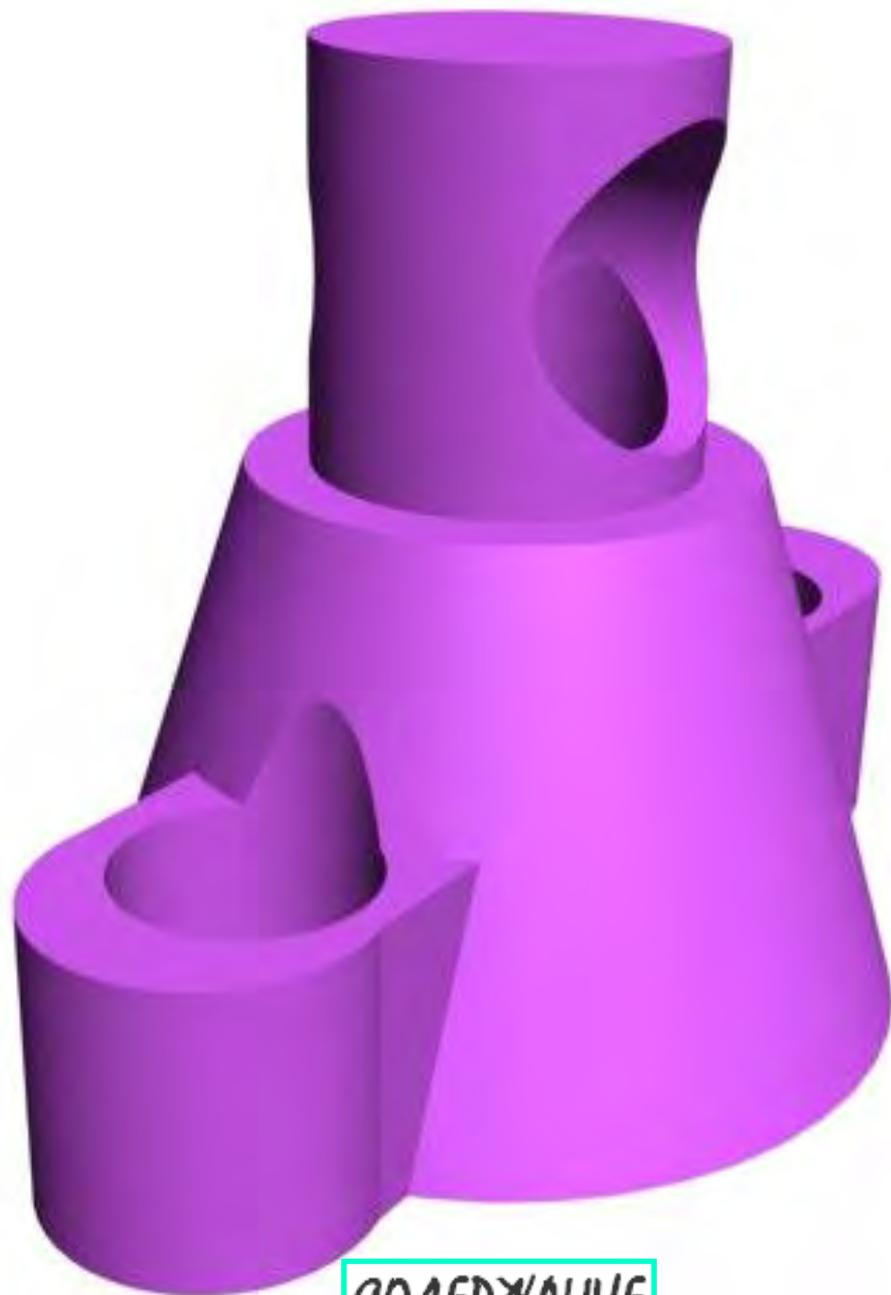
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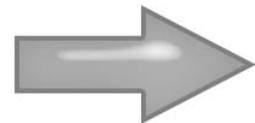
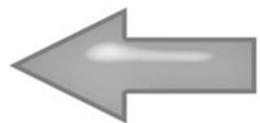


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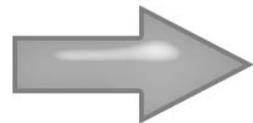
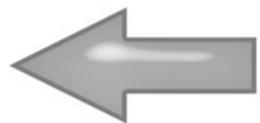


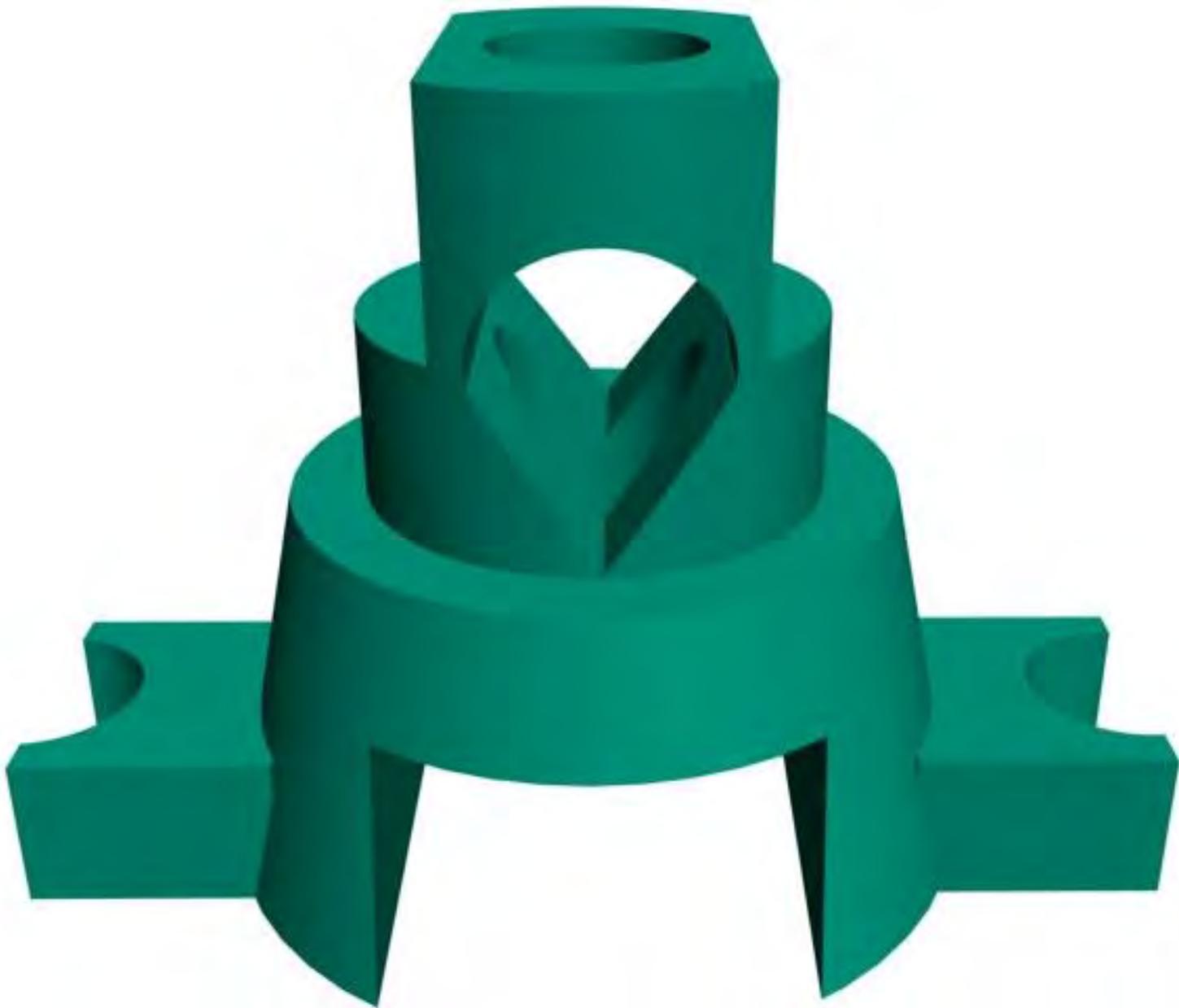
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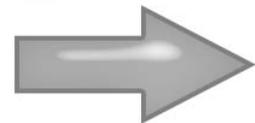
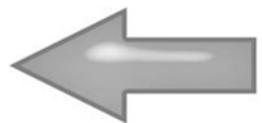


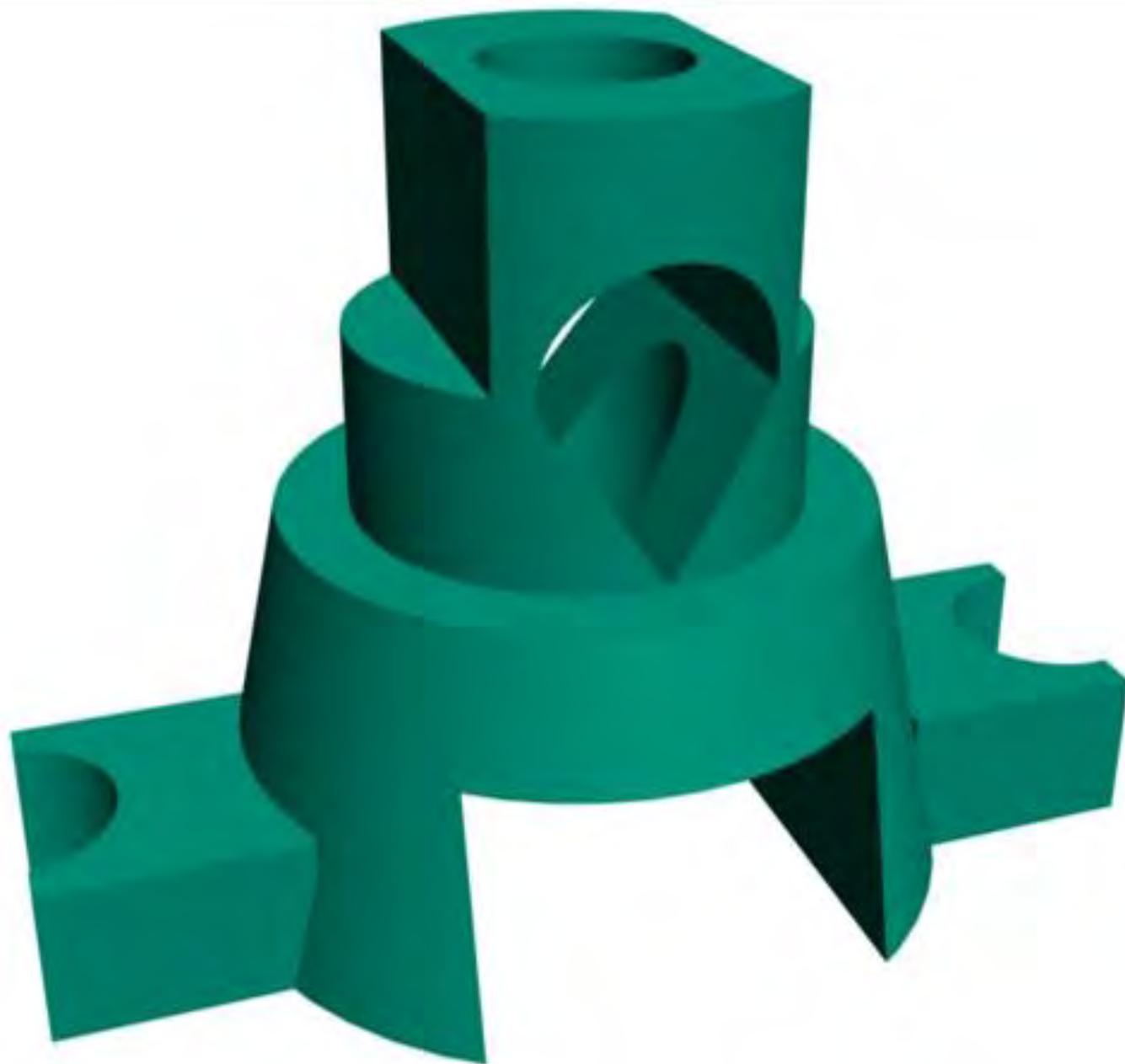
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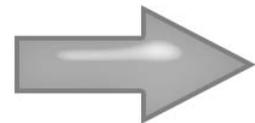
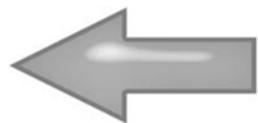


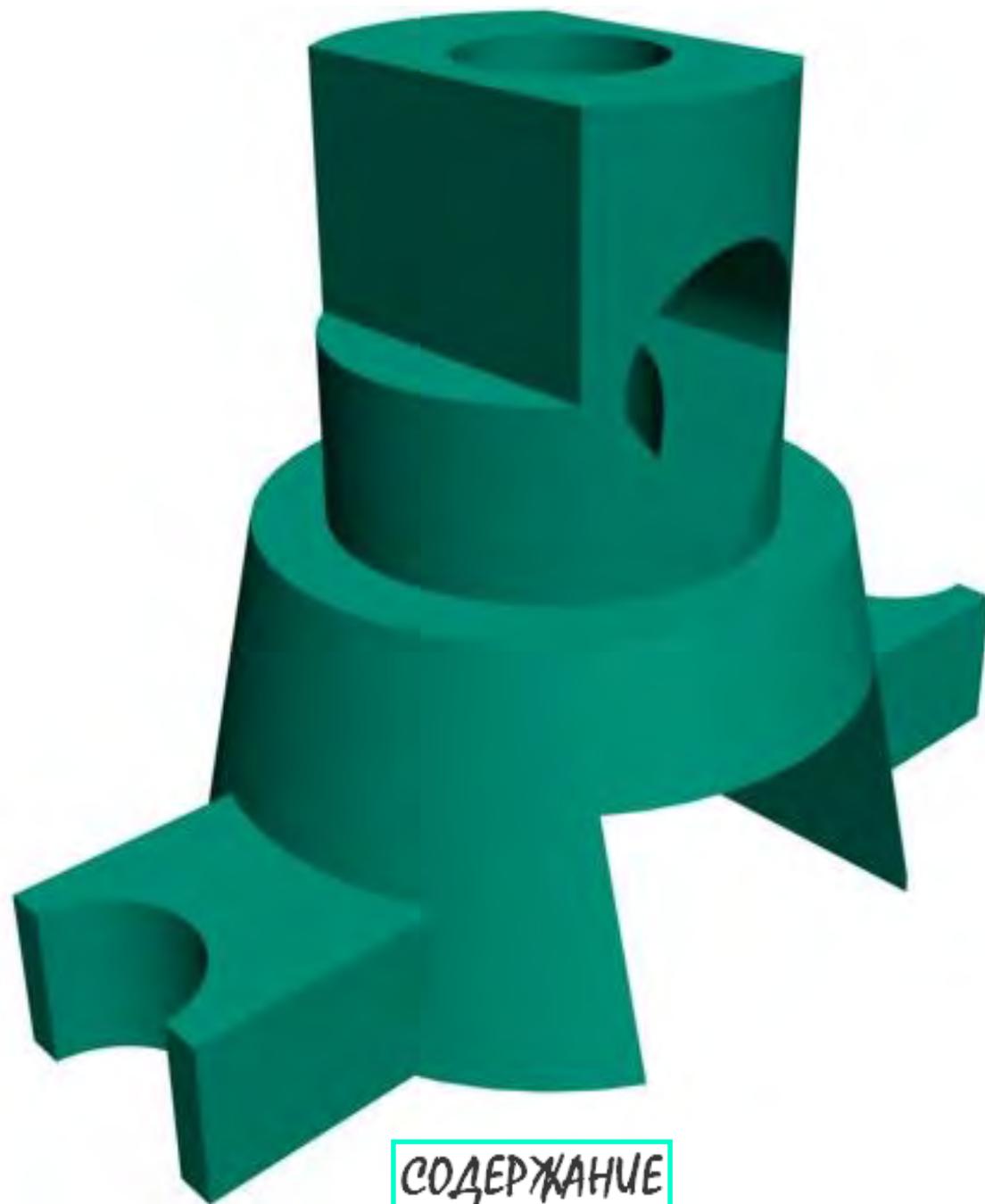
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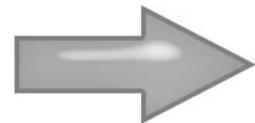
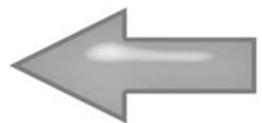


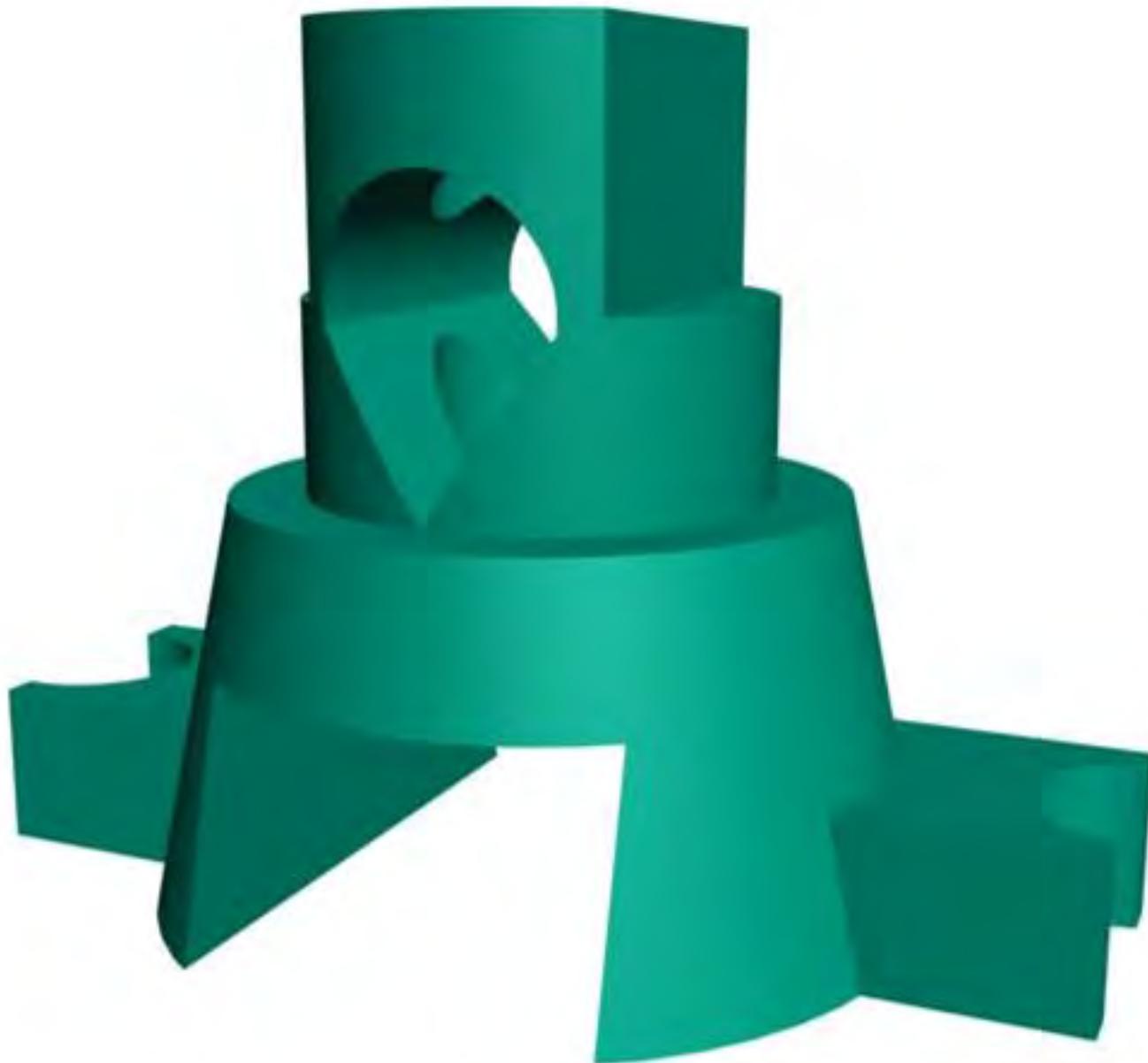


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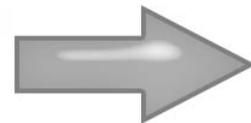


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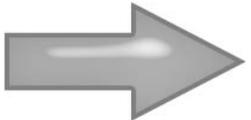
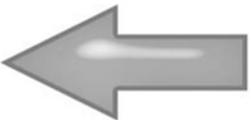


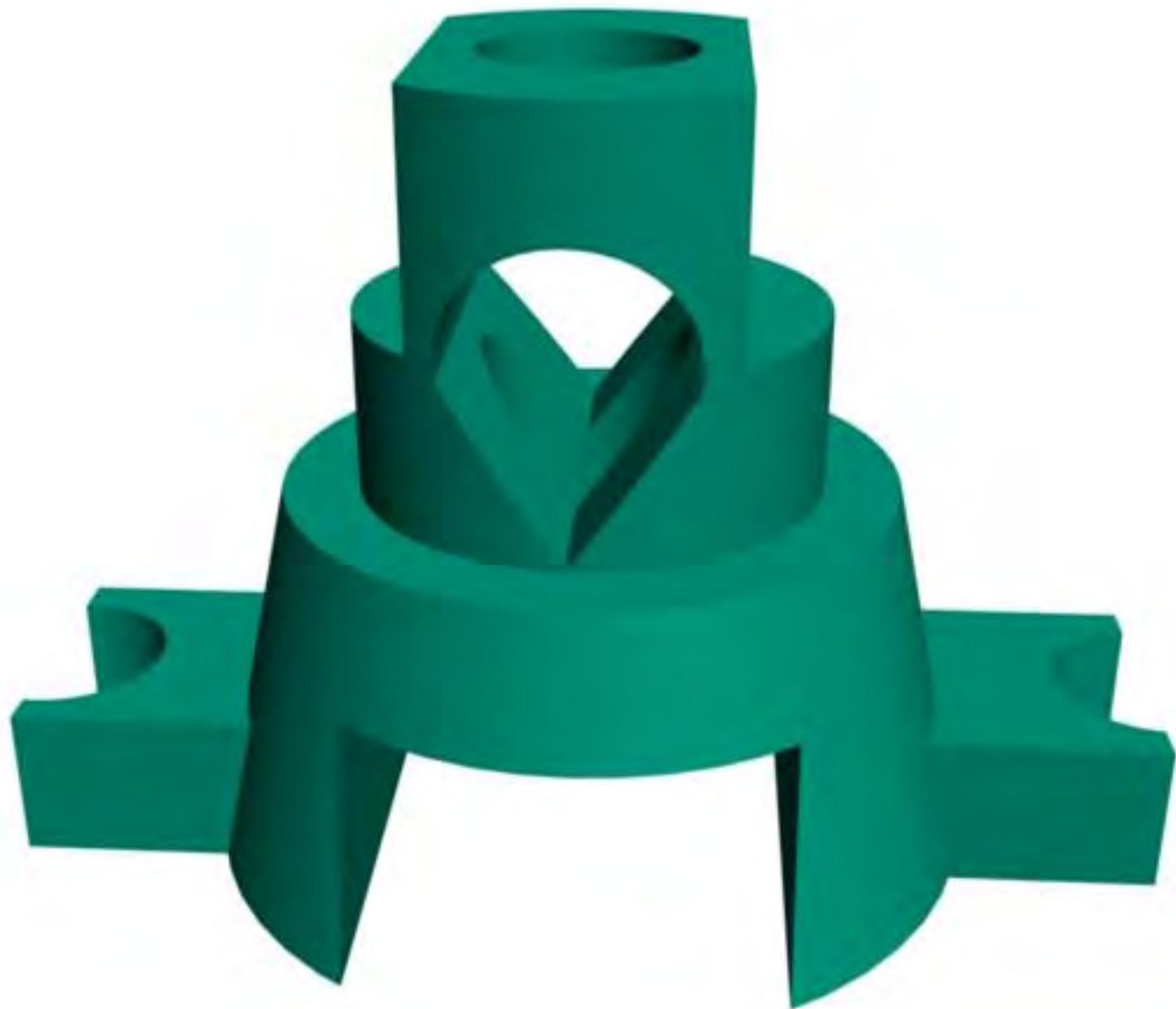
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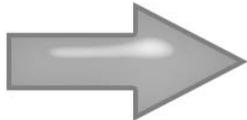
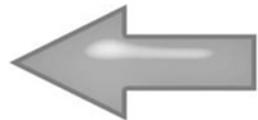


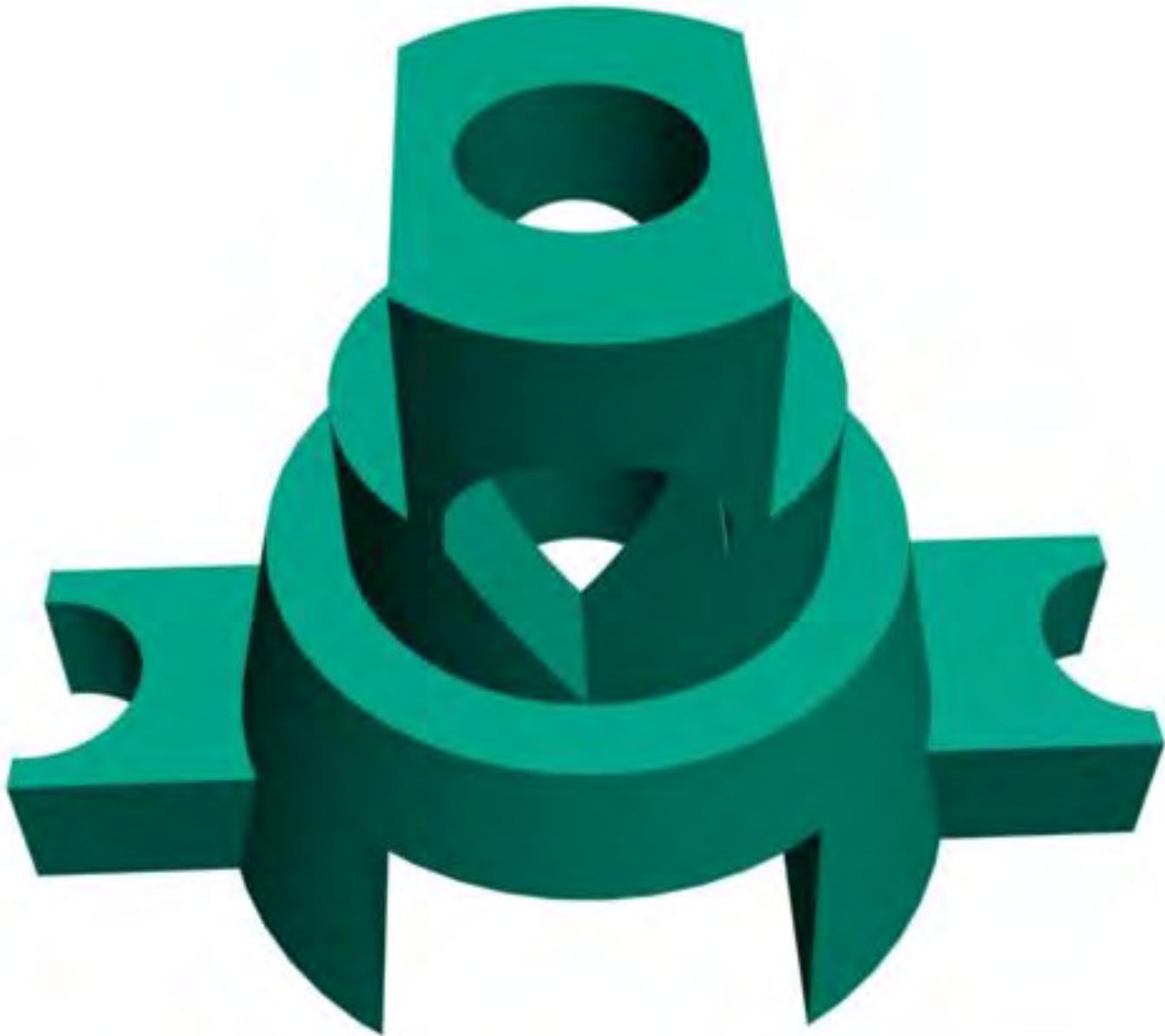
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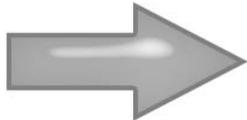
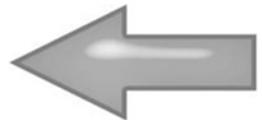


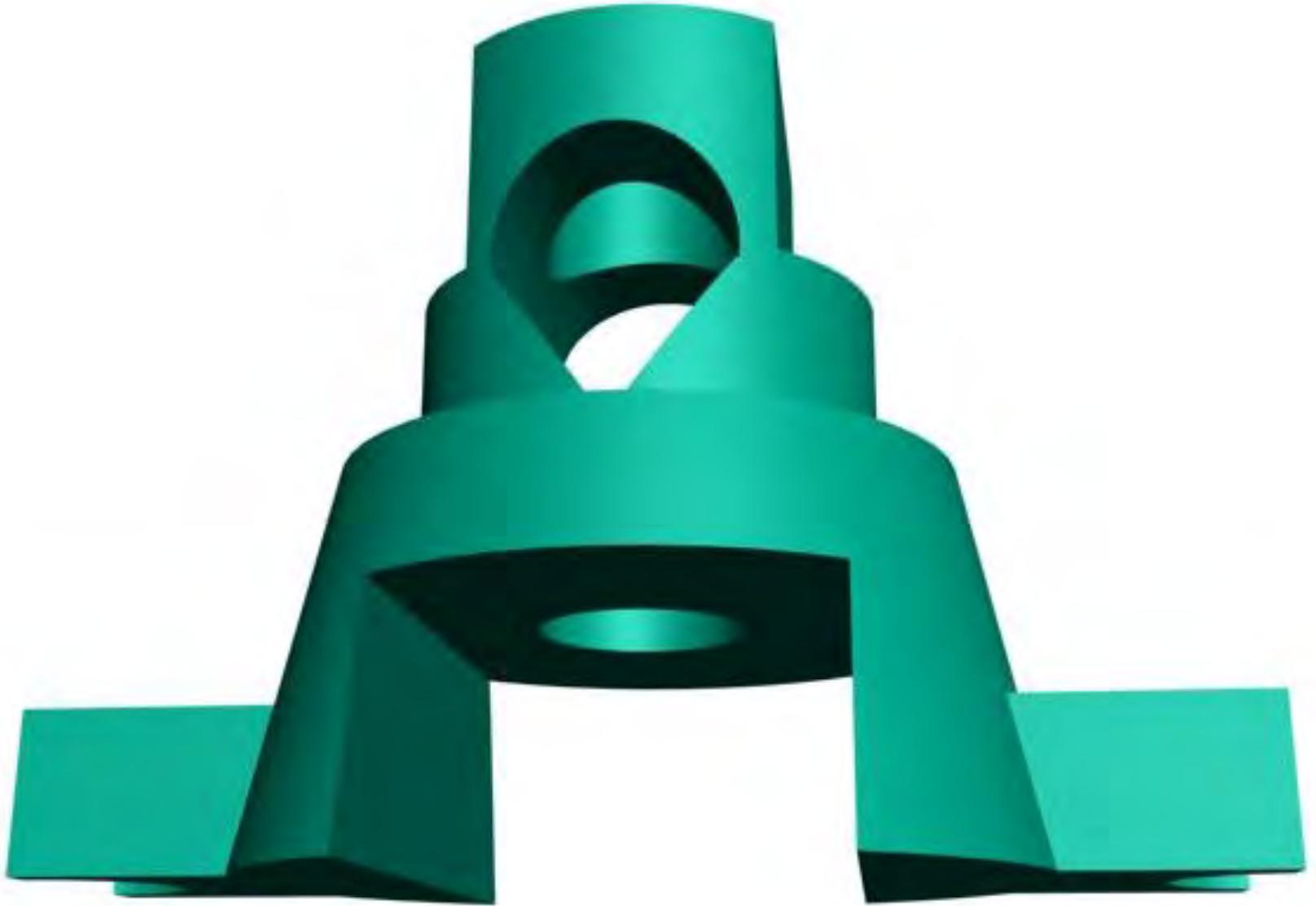
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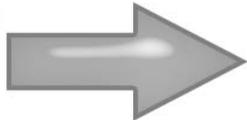
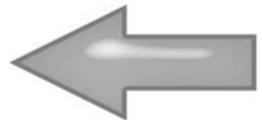


СОДЕРЖАНИЕ





СОДЕРЖАНИЕ



Литература

- Корытко, Л.С. Проекционное черчение: метод. пособие по разделу дисц. «Начертательная геометрия. Инженерная и машинная графика» для студ. строит. спец. / Л.С. Корытко, М.В. Кравченко, М.К. Протасова. – Минск: БНТУ, 2005. – 54 с.
- Селицкий, А.А. Нанесение и простановка размеров: учебно-метод. пособие по дисц. «Инженерная графика» для студ. строит. спец. / А.А. Селицкий, Т.А. Токарева. – Минск: БНТУ, 2004. – 36 с.

СОДЕРЖАНИЕ