

What is the true
number of faces of a
triangular prism?

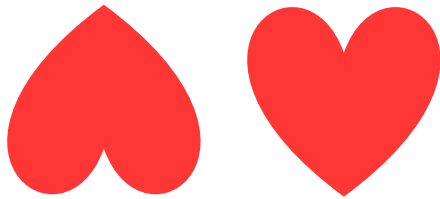


In this lesson you will learn
how to analyze triangular
prisms by locating and
assessing pairs of congruent
triangular faces.

Let's Review

Two figures are congruent when they are exactly the same shape and size.

congruent:



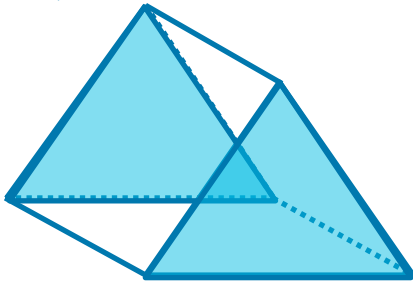
not congruent:



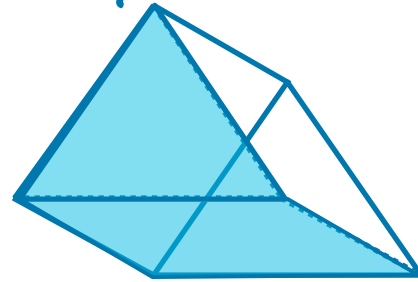
Let's Review

Two faces on a 3D solid are parallel when they never intersect.

parallel:

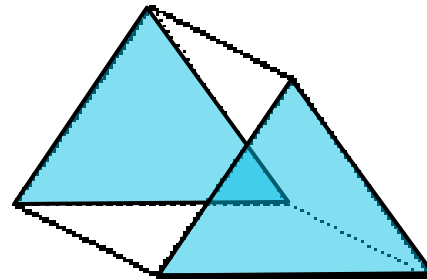
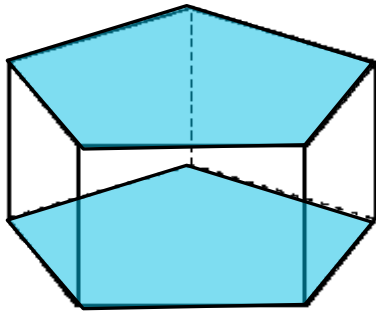


not parallel:



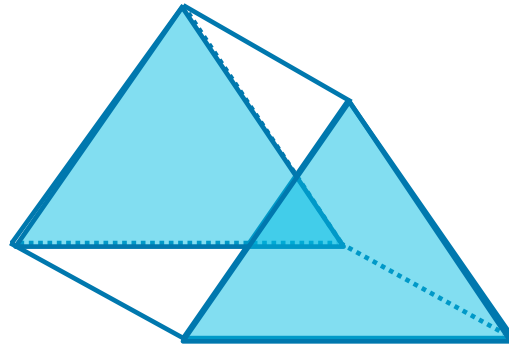
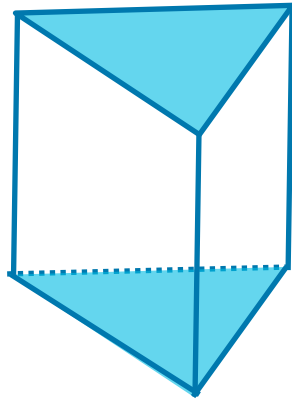
Let's Review

A prism is a three-dimensional figure with two parallel and congruent polygonal bases.



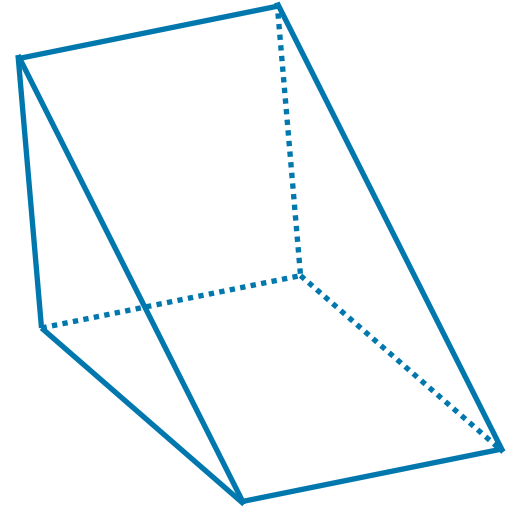
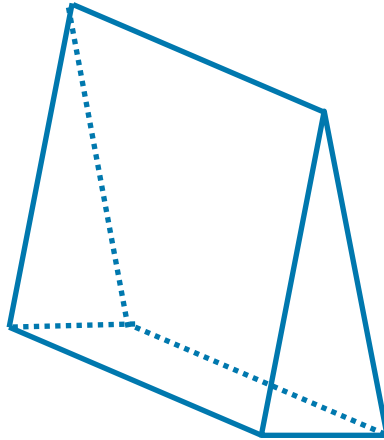
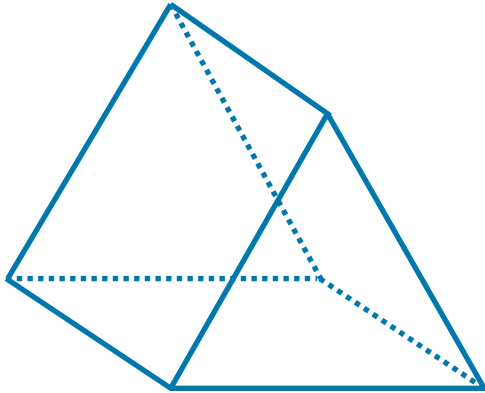
A Common Mistake

The base is not necessarily on the bottom of the prism.

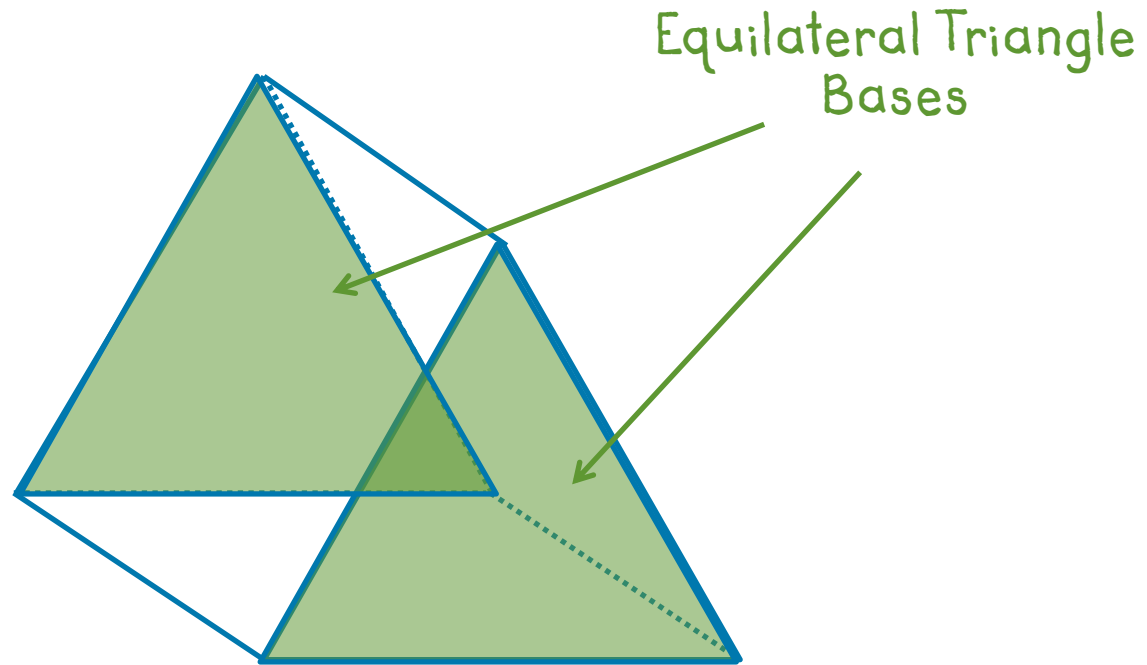


Core Lesson

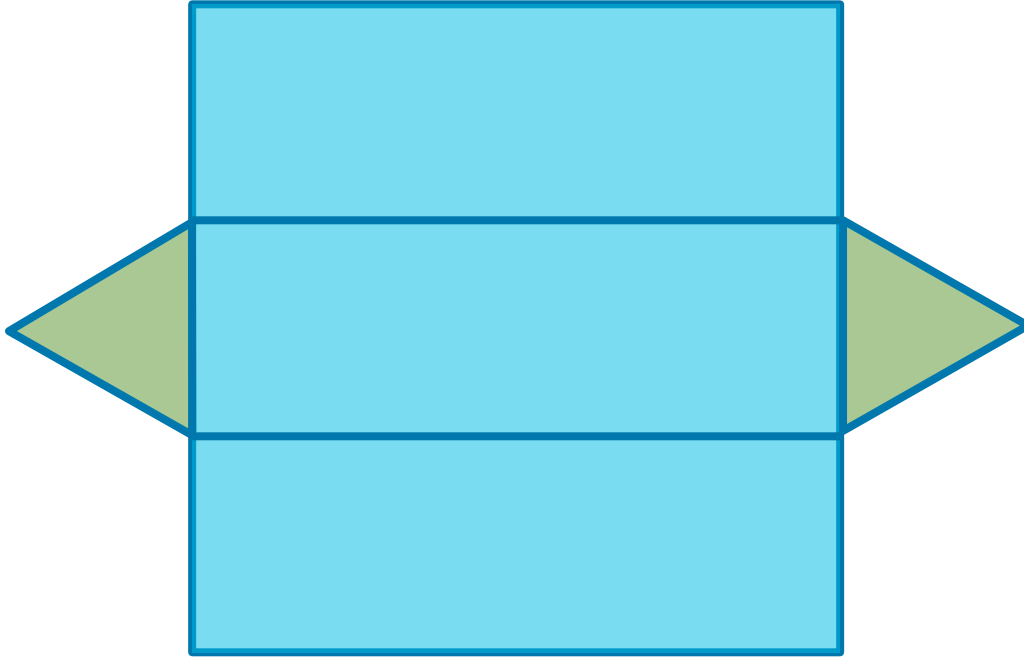
There are three different types of triangular prisms.



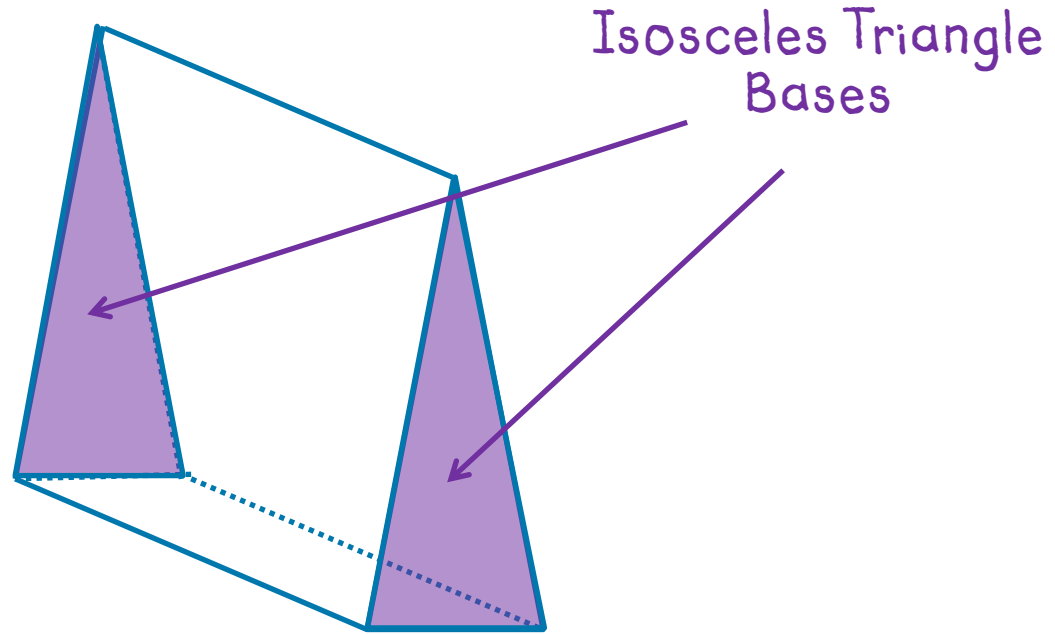
Core Lesson



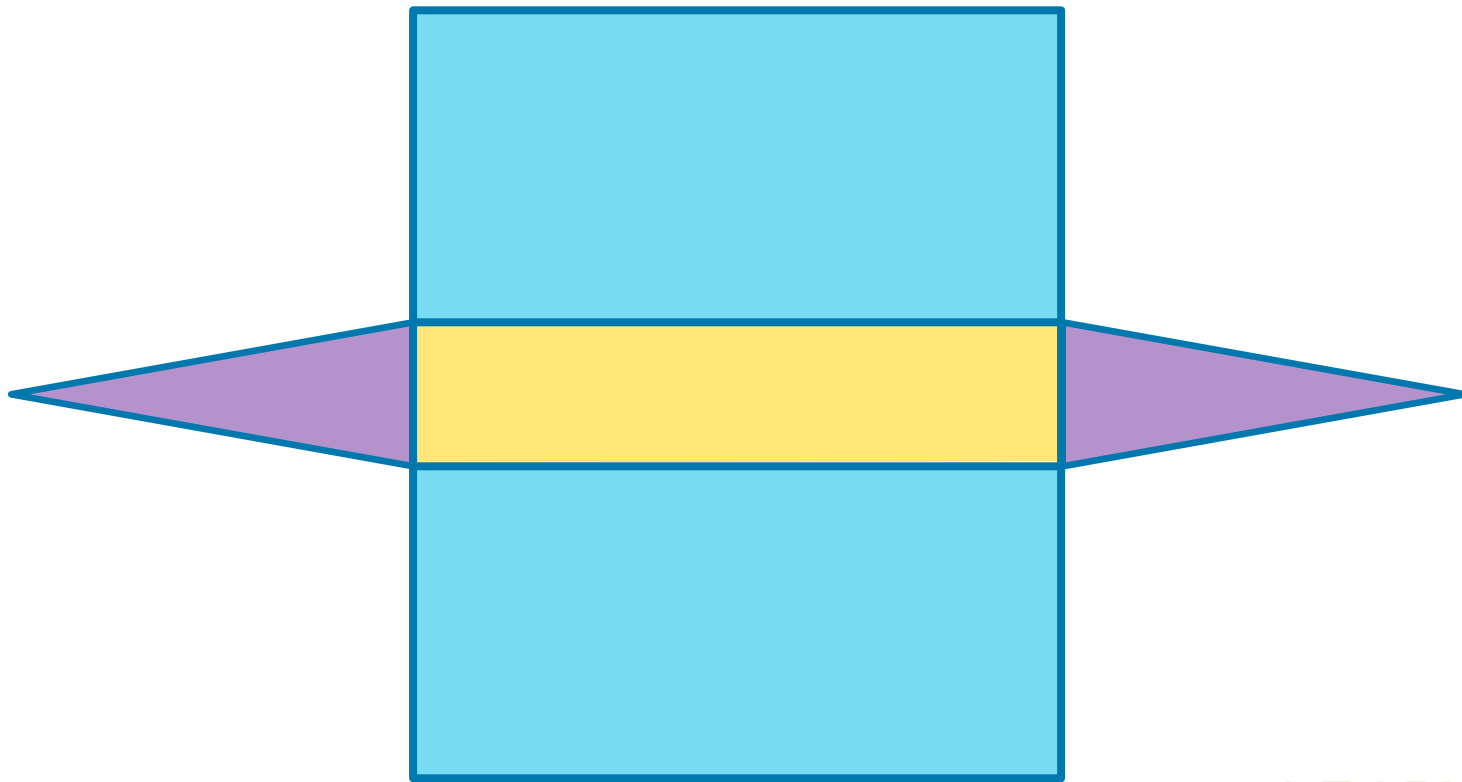
Core Lesson



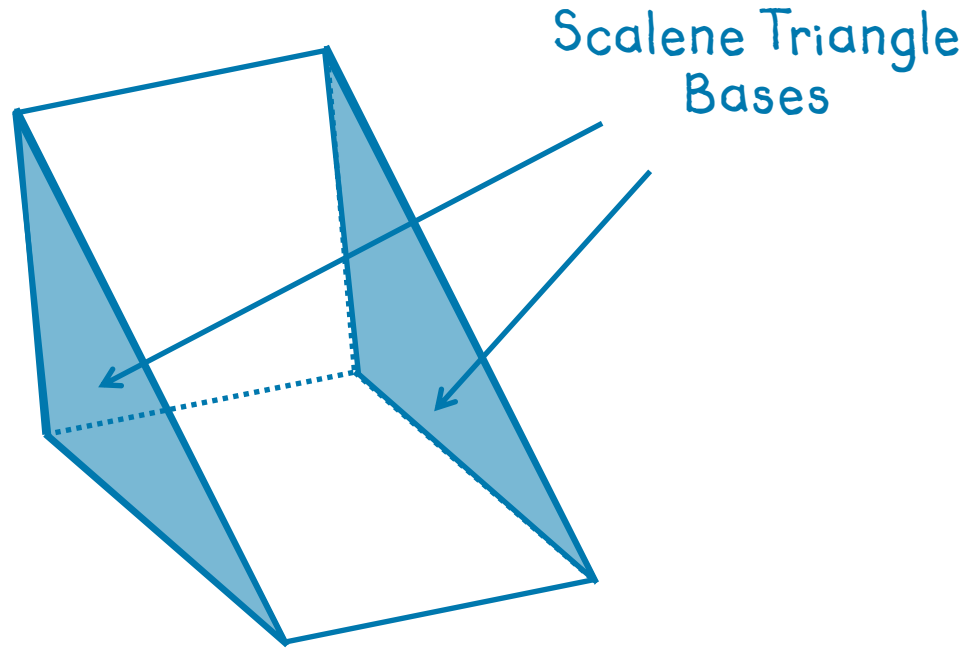
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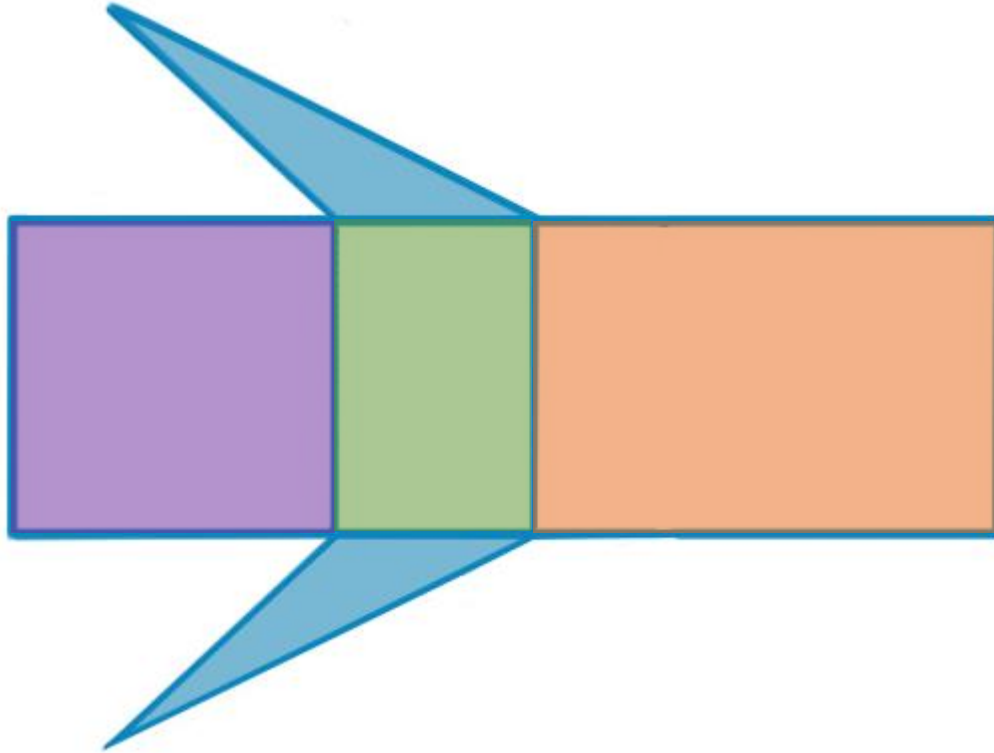
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Core Lesson



Core Lesson



Core Lesson

Triangular prisms with *equilateral triangle bases* have three rectangular faces that are all exactly congruent.

Triangular prisms with *isosceles triangle bases* have three rectangular faces that come in two different sizes.

Triangular prisms with *scalene triangle bases* have three rectangular faces that come in three different sizes.

In this lesson you have
learned how to analyze
triangular prisms by locating
and assessing pairs of
congruent triangular faces.

Guided Practice

Draw a line to match each triangular prism with the correct description of its rectangular faces.

BASE:

1. scalene triangle
2. equilateral triangle
3. isosceles triangle

RECTANGULAR FACES:

- a. 1 size
- b. 2 sizes
- c. 3 sizes



Extension Activities

Danny says, “All triangular prisms have two different types of faces. They have two matching triangular faces, and three matching rectangular faces.”

Write a note to Danny. Explain to him why his statement is not entirely correct. Give him some counter-examples to help him see that his statement is not always true.

Quick Quiz

A triangular prism with a ????? triangle as its base will have three congruent, rectangular faces.

A triangular prism with a ????? triangle as its base will have three rectangular faces in three different sizes.