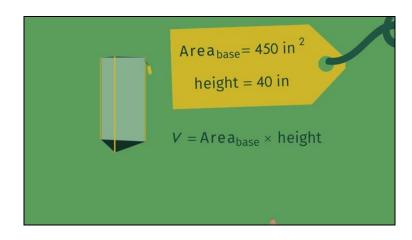


## **Volume of Prisms**



- 1 Review the area of shapes and names of 3-D objects.
- 2 Identify the steps for calculating volume of rectangular prisms.
- 3 Sort the steps for calculating the volume of a triangular prism.
- 4 Calculate volume of right prisms.
- 5 Solve real-world problems involving the volume of right prisms.
- 6 Calculate the volume of the 3D object
- + with lots of tips, answer keys, and detailed answer explanations for all of the problems.

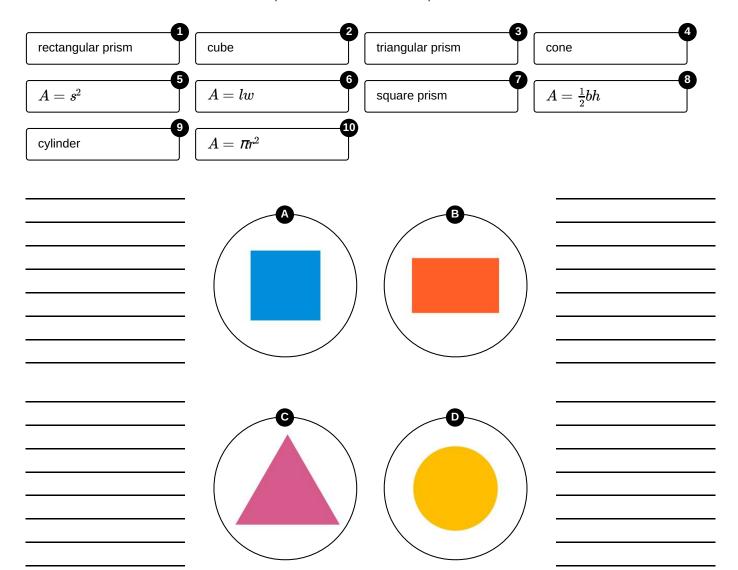


The complete package, **including all problems**, **hints**, **answers**, **and detailed answer explanations** is available for all sofatutor.com subscribers.



# Review the area of shapes and names of 3-D objects.

Match the area formula and 3-D name shape to the correct base shape.



### Hints for solving these problems



# Review the area of shapes and names of 3-D objects.

#### Hint #1

The name of a 3-D prism generally includes the shape of their base. However, there are a few exceptions.

#### Hint #2

To calculate the area of a triangle we need to know the dimensions of its base and height.

#### Hint #3

The area of a circle with a radius of 2 cm is approximately equal to  $12.57 \text{ cm}^2$ .

#### Hint #4

A cone is a solid or hollow object which tapers from a circular base to a point.

#### Hint #5

A cylinder is a solid object with:

- · two identical flat ends that are circular
- and one curved side.



### Answers and detailed answer explanations for these problems



### Review the area of shapes and names of 3-D objects.

**Answer key:** A: 2, 5, 7 // B: 1, 6 // C: 3, 8 // D: 4, 9, 10

#### Blue Square\*

- The area of a square with side lengths, s, is  $A=s^2$ .
- A **cube** and a **square prism** are two 3-D shapes with a square base.

#### **Red Rectangle**

- ullet The area of a rectangle with length l and width w is A=lw.
- A rectangular prism is a 3-D shape with a rectangular base.

#### **Pink Triangle**

- ullet The area of a triangle with base b and height h is,  $A=\frac{1}{2}bh$ .
- A triangular prism is a 3-D shape with a triangular base.

#### **Yellow Circle**

- The area of a circle with radius r is,  $A = \pi r^2$ .
- A **cylinder** and a **cone** are two 3-D shapes with a circular base.

