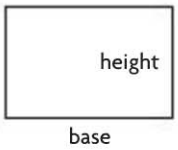
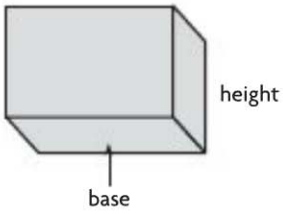
Name _____

Find Area of the Base

Essential Question How can you find the area of the base of a rectangular prism?

Connect The base of a rectangle is different than the base of a rectangular prism. The base of a rectangle is a side, but the base of a rectangular prism is a rectangle. To find the area of a rectangle, use the formula $A = b \times h$ or $l \times w$.





UNLOCK the Problem REAL WORLD

- What shape is the base of the diorama?

_____

- What are the base and height of the base of the diorama?

_____

Example

Ana is making a diorama for a class project. The diorama is in the shape of a rectangular prism. She wants to paint the bottom of the diorama. What is the area of the base?

The base shape is a rectangle.
Use a formula to find the area.

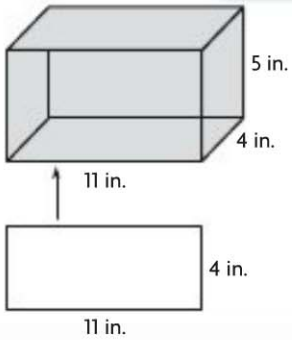
$A = b \times h$

base = _____ inches

height = _____ inches

A = _____ × _____

A = _____ square inches



Math Talk Why would multiplying 11 by 5 give an incorrect answer for the area of the base?

So, the area of the base of the diorama is _____ square inches.

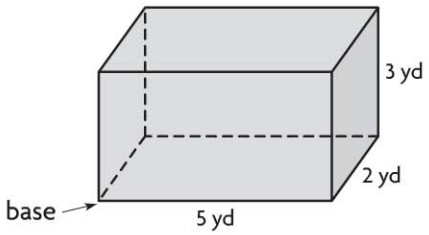
Remember

Area of a rectangle:
$A = b \times h$ or $l \times w$

Area of a square: $A = s \times s$

Share and Show

1. Find the area of the base of the rectangular prism.



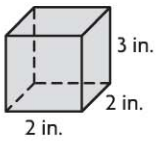
The base shape is a _____.

length = _____ yards, width = _____ yards

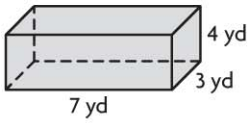
A = _____ × _____ = _____ square yards

So, the area of the base is _____ square yards.

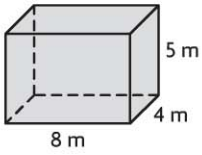
Find the area of the base of the rectangular prism.

2. 

_____

3. 

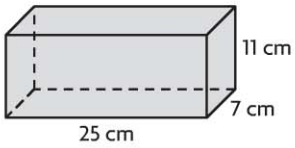
_____

4. 

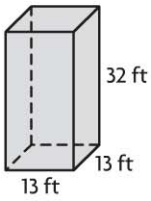
_____

On Your Own

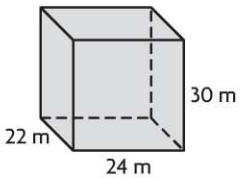
Find the area of the base of the rectangular prism.

5. 

_____

6. 

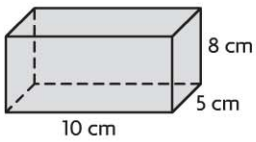
_____

7. 

_____

Problem Solving

8. Julio makes sugar cubes for horses. Each sugar cube edge is 1 centimeter in length. He packs the sugar cubes in the box shown without gaps. Julio says he can fit 80 sugar cubes in the bottom layer. Is he correct? Explain.



_____

_____

_____

_____