

Solve.

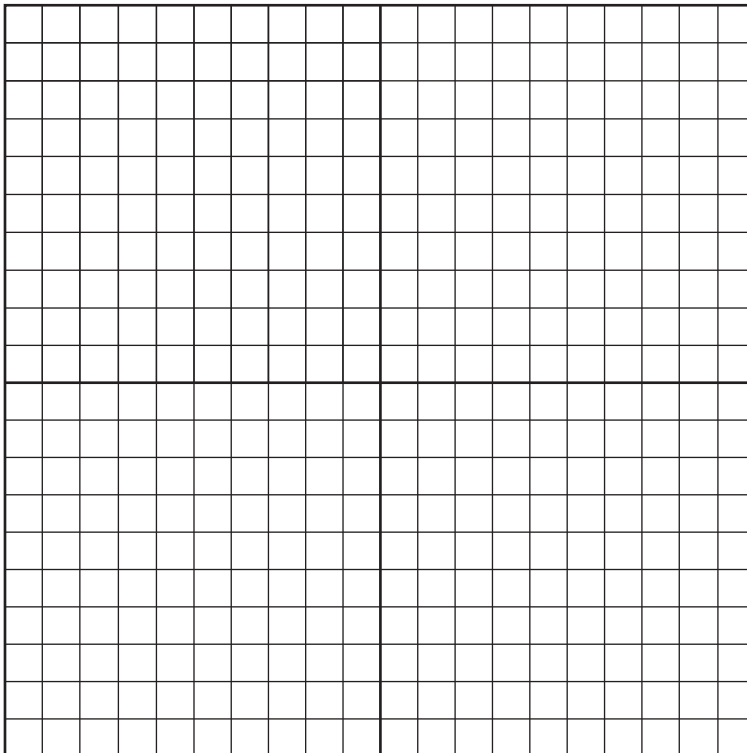
1 On the grid below, draw and label an aquarium shaped like a rectangular prism with a volume of 8,000 cubic inches. (Hint: A cube is a rectangular prism, and $2 \times 2 \times 2 = 8$.)

2 Calculate the perimeter of the top of your aquarium. Then calculate the area of its base.

$$P = \underline{\hspace{10em}}$$

$$A = \underline{\hspace{10em}}$$

3 The rectangular prism you drew for Problem 1 is not the only rectangular prism that has a volume of 8,000 cubic inches. Other prisms are possible. On the grid below, use a new color and draw a different rectangular prism that has a volume of 8,000 cubic inches.



Complete the pattern.

① $22 \times 10^1 = 22 \times 10 =$ _____	② $412 \times 10^1 =$ _____ $= 4,120$
$22 \times 10^2 = 22 \times 100 =$ _____	$412 \times 10^2 = 412 \times 100 =$ _____
$22 \times 10^3 = 22 \times 1,000 =$ _____	$412 \times 10^3 =$ _____ $= 412,000$
$22 \times 10^4 = 22 \times 10,000 =$ _____	$412 \times 10^4 = 412 \times 10,000 =$ _____

③ $56 \times 10^1 =$ _____ $= 560$	④ $8 \times 10^1 = 8 \times 10 =$ _____
$56 \times 10^2 =$ _____ $= 5,600$	$8 \times 10^2 = 8 \times 100 =$ _____
$56 \times 10^3 =$ _____ $= 56,000$	$8 \times 10^3 = 8 \times 1,000 =$ _____
$56 \times 10^4 =$ _____ $= 560,000$	$8 \times 10^4 = 8 \times 10,000 =$ _____

Draw a shape that fits the description. Mark all congruent segments and right angles.

- | | |
|---|--|
| ⑤ a triangle with a right angle and exactly two congruent sides | ⑥ a concave octagon with all sides congruent |
|---|--|

- ⑦ **Stretch Your Thinking** List the dimensions of two different rectangular prisms in which each has a volume of 6,600 cubic centimeters.
