

Week 3 ----Grade 5 going to Grade 6



Summer Package  
Grade 5 going to Grade 6  
(Week 3)  
2018

# Week 3 ----Grade 5 going to Grade 6

Name \_\_\_\_\_

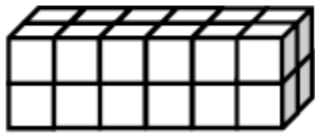
Date \_\_\_\_\_

1-

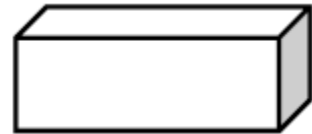
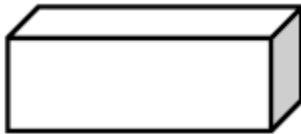
Use the prisms to find the volume.

- Build the rectangular prism pictured below to the left with your cubes, if necessary.
- Decompose it into layers in three different ways, and show your thinking on the blank prisms.
- Complete the missing information in the table.

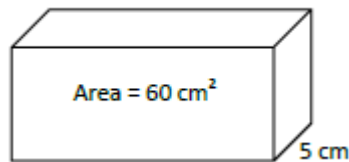
a.



| Number of Layers | Number of Cubes in Each Layer | Volume of the Prism |
|------------------|-------------------------------|---------------------|
|                  |                               | cubic cm            |
|                  |                               | cubic cm            |
|                  |                               | cubic cm            |

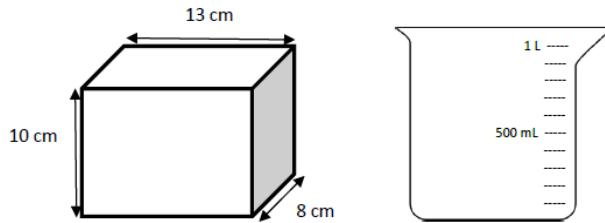


- 2- Aaron says more information is needed to find the volume of the prisms. Explain why Aaron is mistaken, and calculate the volume of the prisms



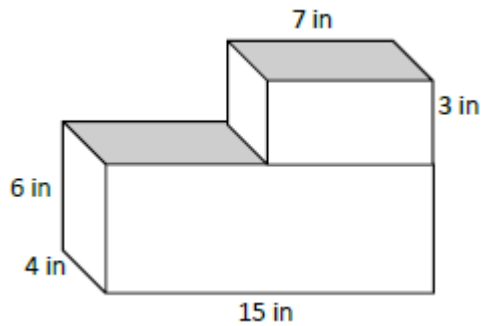
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- 3- The tank, shaped like a rectangular prism, is filled to the top with water.



Will the beaker hold all the water in the tank? If yes, how much more will the beaker hold? If no, how much more will the tank hold than the beaker? Explain how you know.

- 4- Find the total volume of the figures, and record your solution strategy.



Volume: \_\_\_\_\_

Solution Strategy:

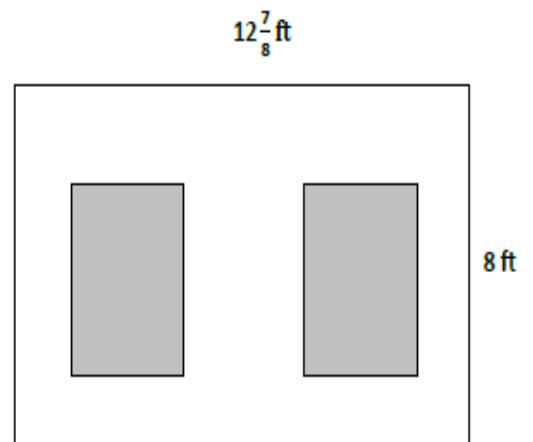
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5- Geoffrey wants to make one planter that extends from the ground to just below his back window. The window starts 3 feet off the ground. If he wants the planter to hold 36 cubic feet of soil, name one way he could build the planter so it is not taller than 3 feet. Explain how you know.

6- Hanley is putting carpet in her house. She wants to carpet her living room, which measures 15 ft × 12 1/3 ft. She also wants to carpet her dining room, which is 10 1/4 ft × 10 1/3 ft. How many square feet of carpet will she need to cover both rooms?

7-

George decided to paint a wall with two windows. Both windows are  $3\frac{1}{2}$  ft by  $4\frac{1}{2}$  ft rectangles. Find the area the paint needs to cover.



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8-

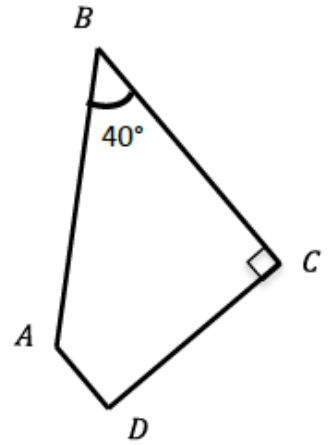
Fill in the blanks.

- a.  $ABCD$  is a trapezoid. Find the measurements listed below.

$$\angle A = \underline{\hspace{2cm}}^\circ$$

$$\angle D = \underline{\hspace{2cm}}^\circ$$

What other names does this figure have?



9-

$RECT$  is a rectangle. Find the measurements listed below.

$$\text{Line } TE = \underline{\hspace{2cm}}$$

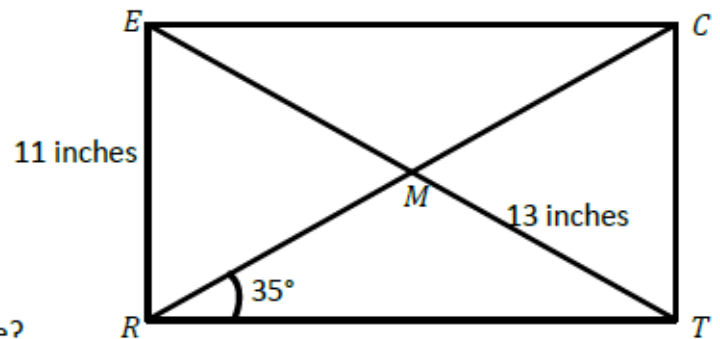
$$\text{Line } RC = \underline{\hspace{2cm}}$$

$$\text{Line } CT = \underline{\hspace{2cm}}$$

$$\angle ERM = \underline{\hspace{2cm}}^\circ$$

$$\angle CTR = \underline{\hspace{2cm}}^\circ$$

What other names does this figure have?



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10-

Plot the following points on the coordinate plane to the right.

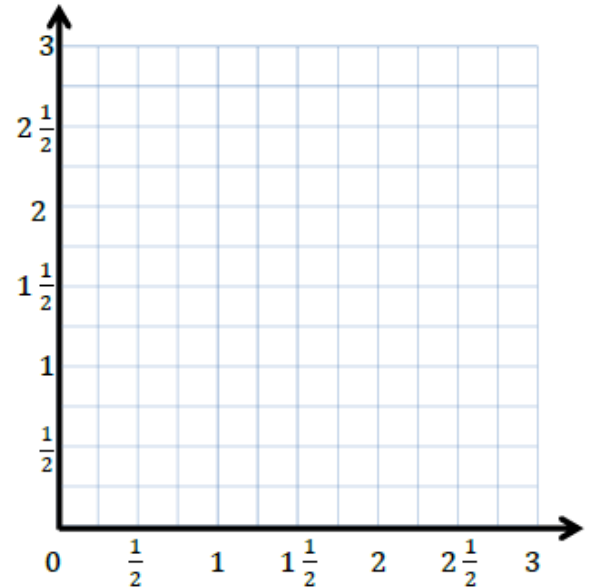
$$P: (1\frac{1}{2}, \frac{1}{2}) \quad Q: (1\frac{1}{2}, 2\frac{1}{2})$$

$$R: (1\frac{1}{2}, 1\frac{1}{4}) \quad S: (1\frac{1}{2}, \frac{3}{4})$$

- Use a straightedge to draw a line to connect these points. Label the line  $h$ .
- In line  $h$ ,  $x = \underline{\hspace{1cm}}$  for all values of  $y$ .
- Circle the correct word.

Line  $h$  is *parallel* *perpendicular* to the  $x$ -axis.

Line  $h$  is *parallel* *perpendicular* to the  $y$ -axis.



- What pattern occurs in the coordinate pairs that let you know that line  $h$  is vertical?

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11- Complete the table for the given rules for "X" values 0, 3, 7, and 9.

Line *e*

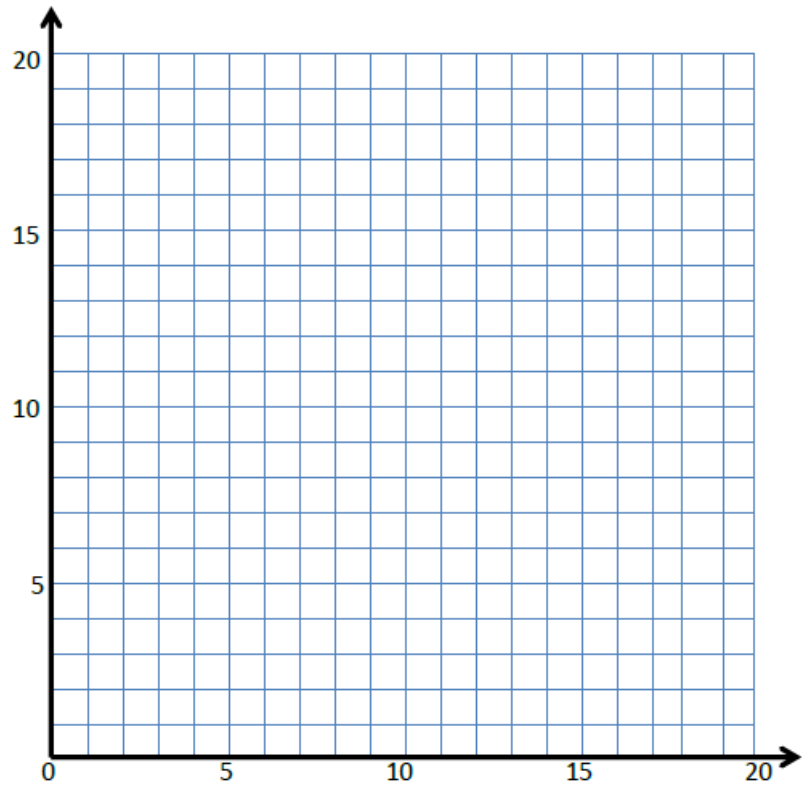
Rule: *y* is twice as much as *x*

| <i>x</i> | <i>y</i> | ( <i>x</i> , <i>y</i> ) |
|----------|----------|-------------------------|
|          |          |                         |
|          |          |                         |
|          |          |                         |
|          |          |                         |

Line *f*

Rule: *y* is half as much as *x*

| <i>x</i> | <i>y</i> | ( <i>x</i> , <i>y</i> ) |
|----------|----------|-------------------------|
|          |          |                         |
|          |          |                         |
|          |          |                         |
|          |          |                         |



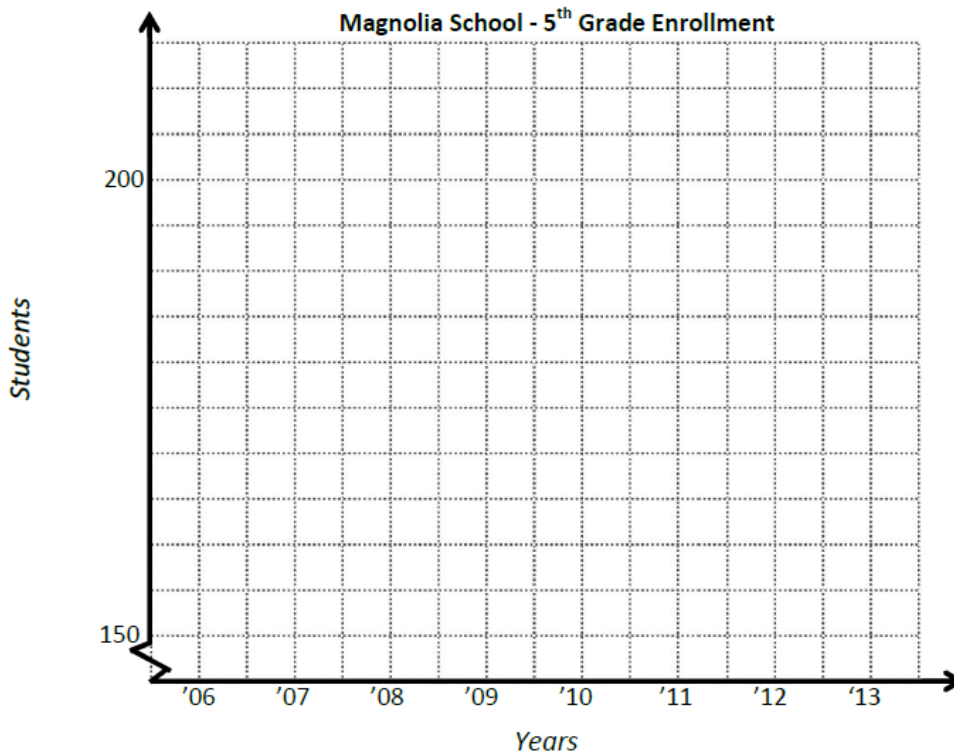
a) Construct each line on the coordinate plane above.

b) Compare and contrast these lines

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12- Use the story context below to sketch a line graph. Then answer the questions that follow.

The number of fifth-grade students attending Magnolia School has changed over time. The school opened in 2006, with 156 students in the fifth grade. The student population grew the same amount each year before reaching its largest class of 210 students in 2008. The following year, Magnolia lost one-seventh of its fifth-graders. In 2010, the enrollment dropped to 154 students and remained constant in 2011. For the next two years, the enrollment grew by 7 students each year.



- How many more fifth-grade students attend Magnolia in 2009 than in 2013?
- Between which two years was there the greatest change in student population?
- If the fifth-grade population continues to grow in the same pattern as in 2012 and 2013, in what year will the number of students match 2008's enrollment?