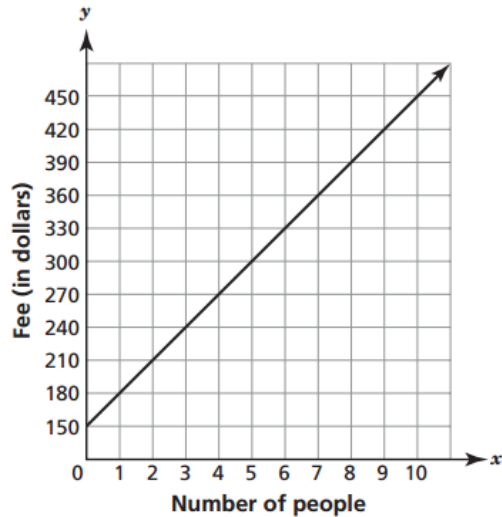


## Assignment 36

- 3** The graph below models the cost of holding a banquet at the Tea Room restaurant.



What is the initial fee and cost per person to hold a banquet at the Tea Room?

- A** fee: \$150, cost per person: \$30
- B** fee: \$30, cost per person: \$150
- C** fee: \$0, cost per person: \$30
- D** fee: \$150, cost per person: \$0

- 7** Which ordered pairs prevent the following set from being a function?

$\{(1, 3), (2, 4), (3, 4), (3, 6), (5, 10), (6, 3)\}$

- A**  $(3, 4), (2, 4)$
- B**  $(3, 4), (3, 6)$
- C**  $(1, 3), (3, 4)$
- D**  $(3, 6), (6, 3)$

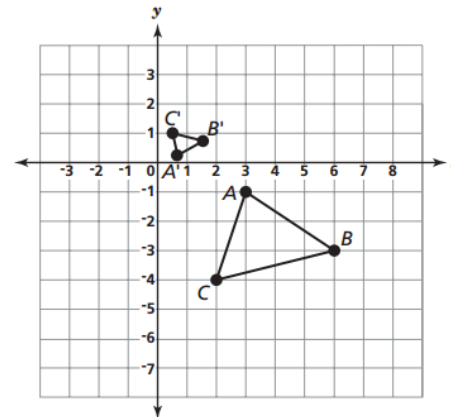
- 6** Four teams,  $A$ ,  $B$ ,  $C$ , and  $D$ , are participating in a regional math quiz. They were asked to find the equation of a line that passes through the points  $(5, -12)$  and  $(15, -8)$ . The table below shows their responses.

Team	Equation
$A$	$y = \frac{2}{5}x$
$B$	$y = \frac{2}{5}x - 2$
$C$	$y = \frac{2}{5}x - 14$
$D$	$y = \frac{2}{5}x + 2$

Which team answered correctly?

- A** Team  $A$
- B** Team  $B$
- C** Team  $C$
- D** Team  $D$

- 16** Triangle  $A'B'C'$  is similar to triangle  $ABC$ .



Which sequence of transformations was used to create the similarity?

- A** Triangle  $ABC$  was reflected across the  $x$ -axis and then dilated by a scale factor of 0.25 with the origin as the center of dilation.
- B** Triangle  $ABC$  was dilated by a scale factor of 0.25 with the origin as the center of dilation and then reflected across the  $x$ -axis.
- C** Triangle  $ABC$  was dilated by a scale factor of 0.25 with the origin as the center of dilation and then reflected across the  $y$ -axis.

Assignment 36

**10** A plumber charges a base fee for all service appointments. If a repair is needed, he adds a charge for each hour of labor. If the total cost,  $y$ , in dollars, of the plumber's  $x$ -hour repair visit is modeled by the equation  $y = 25x + 30$ , what could the  $y$ -intercept represent?

- A a base fee of \$0 for service appointments
- B a base fee of \$25 for service appointments
- C a base fee of \$30 for service appointments
- D a base fee of \$55 for service appointments

**77** A computer technician keeps track of his earnings throughout each month. The technician observes that his earnings are a linear function of the number of hours he works during the month. The technician finds that when he works 55 hours during the month, he earns \$2,125, and when he works 30 hours, he earns \$585.

**Part A**

Write a linear function to model the relationship between the number of hours worked and the money earned.

**Function** \_\_\_\_\_

**Part B**

Explain the meaning of slope in the context of the problem.

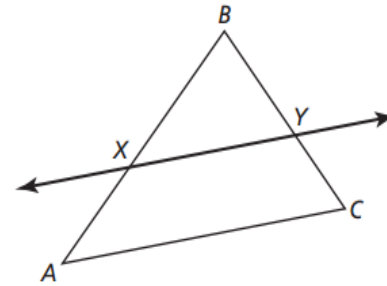
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**72** Line  $XY$  is parallel to line segment  $AC$  as shown in the figure below.



**Part A**

Name two similar triangles shown in the figure.

**Answer** \_\_\_\_\_

**Part B**

Explain why the triangles are similar.

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