Use the following information to answer question 2.

A truck heads north at a constant speed of 80 km/h. A car leaves 20 minutes later heading north along the same road and travelling at a constant speed of 90 km/h.

2. Which of the following equations could be used to determine how much time in hours, t, the car travels until it catches up to the truck?

A. $90t = 80\left(t - \frac{1}{3}\right)$

B. $90t = 80\left(t + \frac{1}{3}\right)$

C. $90t = 80(t - 20)$

D. $90t = 80(t + 20)$

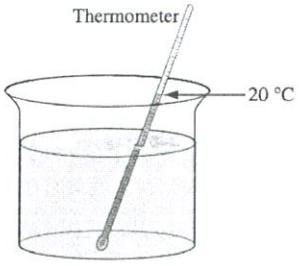
$d = 90t$

$d = 80(t + 20)$

$90t = 80(t + 20)$

Use the following information to answer question 35.

In a science experiment, a solution has an initial temperature of 20 °C, as shown below.



35. If the temperature, T, of the solution drops 2.8 °C/h, then which of the following equations can be used to calculate the temperature of the solution after 4 hours?

A. $T = 20\ °C - (2.8\ °C/h \times 4\ h)$

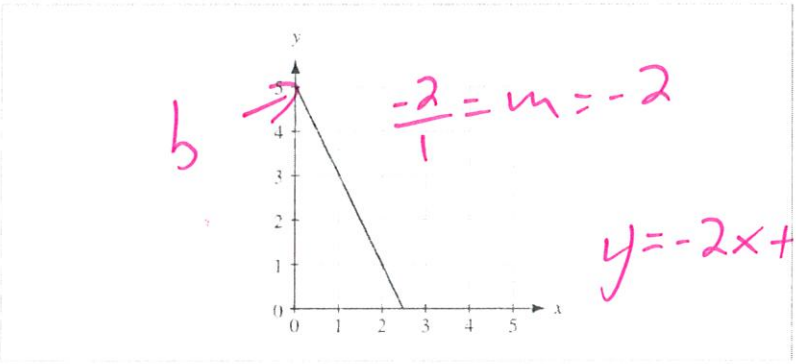
B. $T = 20\ °C + (2.8\ °C/h \times 4\ h)$

C. $T = (20\ °C - 2.8\ °C/h) \times 4\ h$

D. $T = (20\ °C + 2.8\ °C/h) \times 4\ h$

$20 - 2.8 \cdot 4$

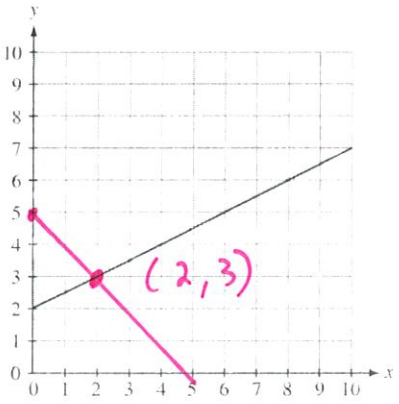
Use the following information to answer question 36.



36. Which of the following equations represents the relationship between the variables x and y in the graph shown above?

A. $y = 5 - 2x$
B. $y = 2x - 5$
C. $y = 5 - x$
D. $y = x - 5$

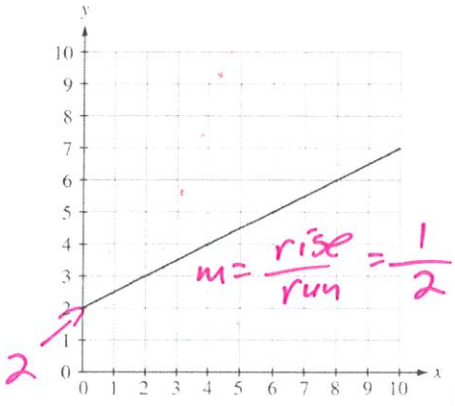
Use the following information to answer question 30.



30. The line created by the relation $y = 5 - x$ will intersect the line shown on the graph above at

A. (0, 5)
B. (5, 0)
C. (2, 3)
D. (3, 2)

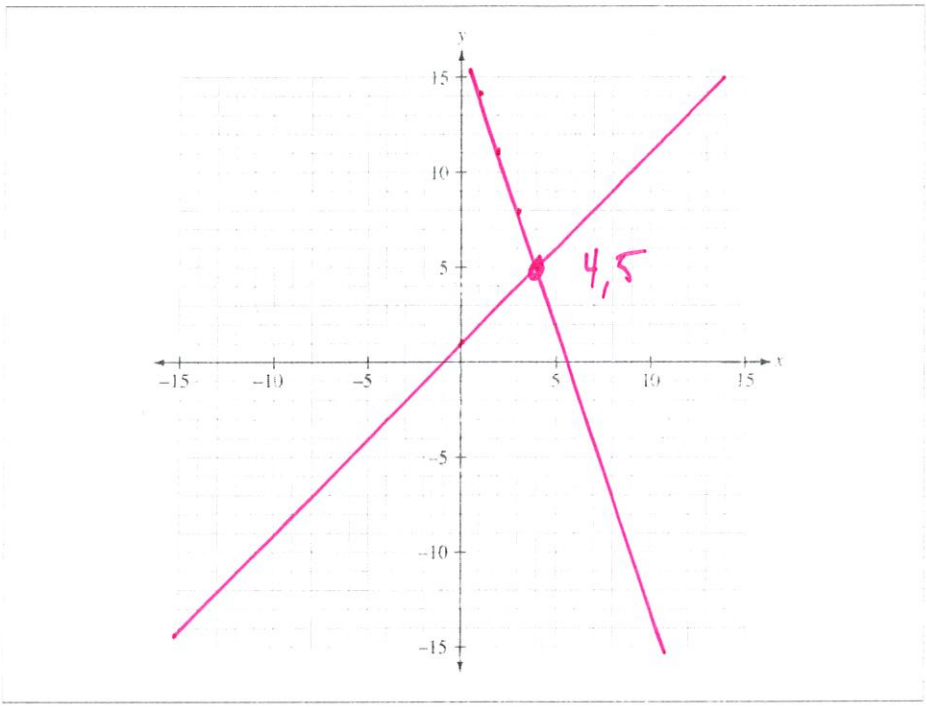
Use the following information to answer question 38.



38. The equation representing the linear relation on the graph shown above is

A. $y = 0.5x + 2$
B. $y = 0.5x - 2$
C. $y = 2x + 4$
D. $y = 2x - 4$

Use the following information to answer question 24.



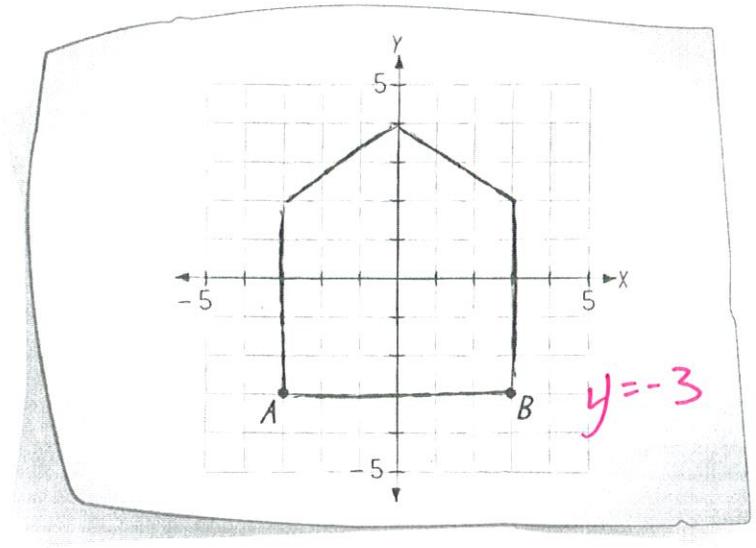
24. The graphs of the relations $3x + y = 17$ and $y = x + 1$ intersect at the point with the coordinates

$y = -3x + 17$

A. (0, 1)
B. (3, 8)
C. (4, 5)
D. (5, 4)

Use the following information to answer question 33.

Carly drew a design on the Cartesian plane shown below.

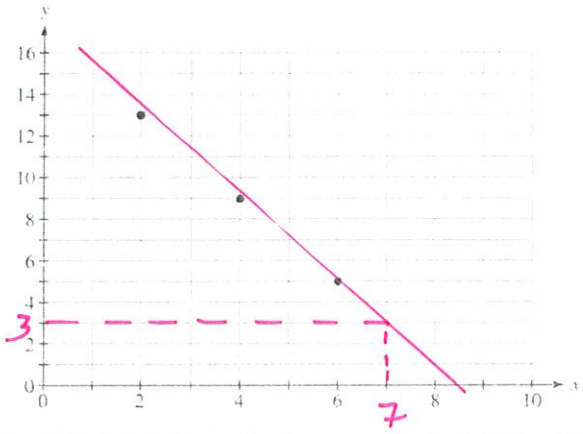


33. Which of the following equations describes line segment *AB* on the Cartesian plane shown above?

A. $y = -3$
B. $y = 3$
C. $x = -3$
D. $x = 3$

Use the following information to answer numerical-response question 2.

The following graph represents a linear relation.



Numerical Response

2. Based on the linear relation shown above, when the y-coordinate is 3, the x-coordinate is 7.

(Record your answer in the numerical-response section on the answer sheet.)