

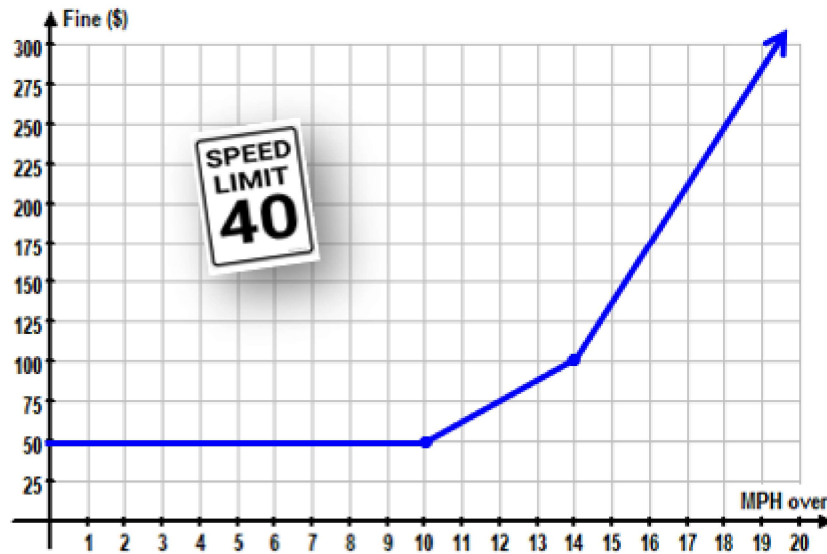
Unit 04-05 - Piecewise Function Models

Multiple Choice

Identify the choice that best completes the statement or answers the question.

_____ 1. **Piece-wise Graphs**

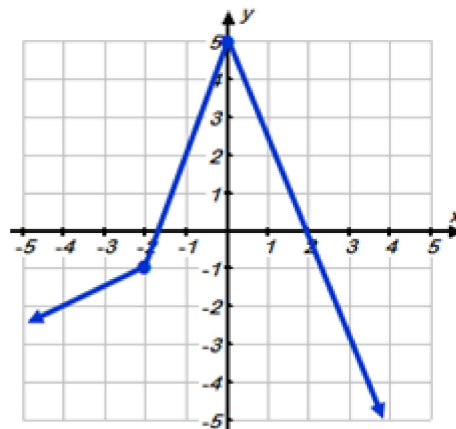
The graph at the right models how one county fines driver's that get a ticket for speeding based on how many miles over the speed limit. Based on the graph, what would the fine be for a person that was ticketed for driving 52 mph in a zone that had a maximum speed limit of 40 mph?



- a. \$50
- b. \$75
- c. \$100
- d. \$125

_____ 2. **Piece-wise Graphs**

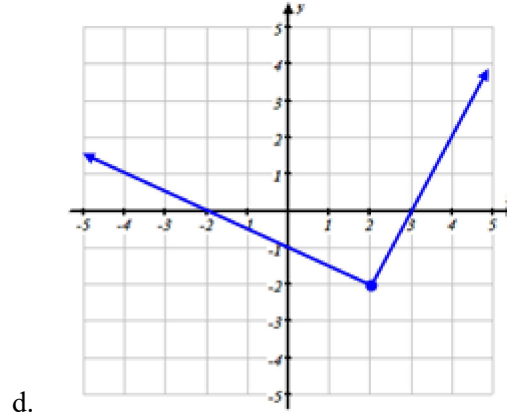
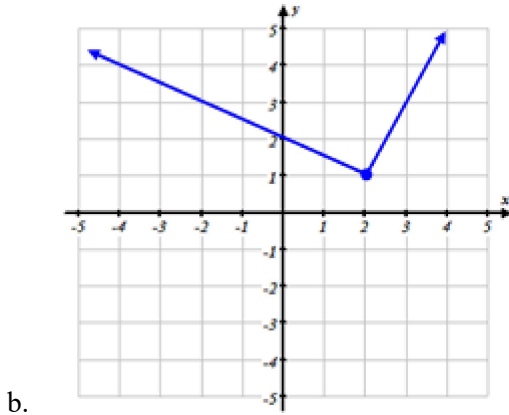
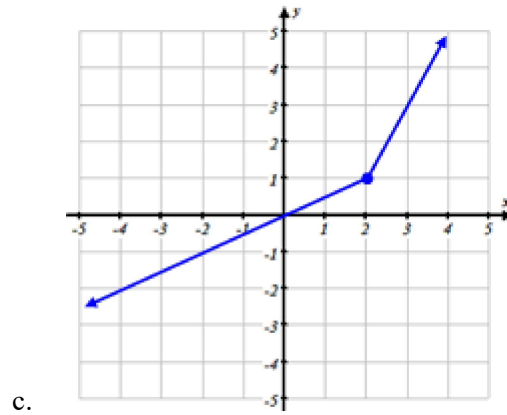
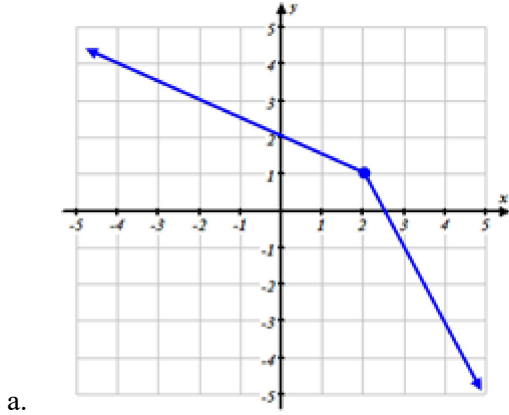
In the piece-wise function graphed at the right, which is the correct equation for when $x > 0$?



- a. $y = 3x + 5$
- b. $y = \frac{1}{3}x - 1.7$
- c. $y = -\frac{2}{5}x + 2$
- d. $y = -\frac{5}{2}x + 5$

3. **Piece-wise Graphs**

Which graph below correctly shows: $y = \begin{cases} -\frac{1}{2}x + 2 & x < 2 \\ 2x - 3 & x \geq 2 \end{cases}$



4. **Piece-wise Graphs**

Consider the Piece-wise graph described by the following equation:

$$y = \begin{cases} 3x + 1 & x < 3 \\ x^2 - 3 & x \geq 3 \end{cases}$$

Determine the coordinates of the point on the graph where $x = 2$.

- | | |
|-----------|-----------|
| a. (2, 1) | c. (2, 8) |
| b. (2, 7) | d. (2, 0) |