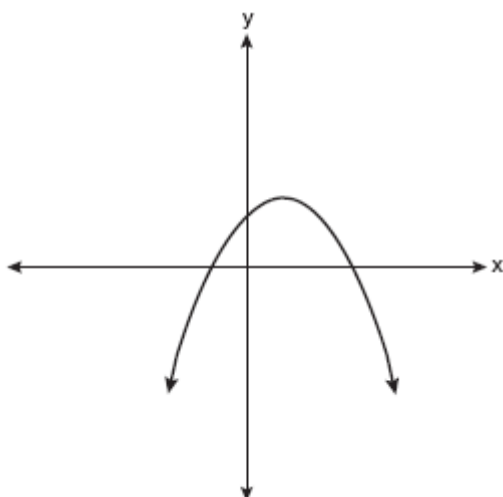


NAME: \_\_\_\_\_

*A.G.4: Identify and graph linear, quadratic (parabolic), absolute value, and exponential functions.*

1. fall0717ia, P.I. A.G.4

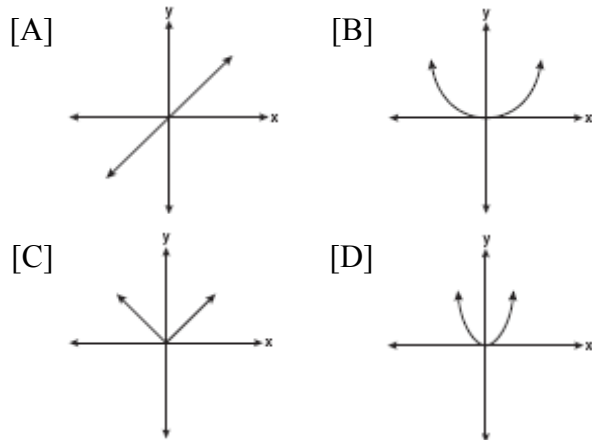
Which type of graph is shown in the diagram below?



- [A] exponential      [B] absolute value  
[C] quadratic      [D] linear

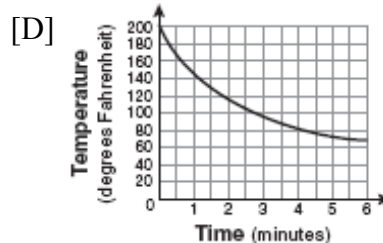
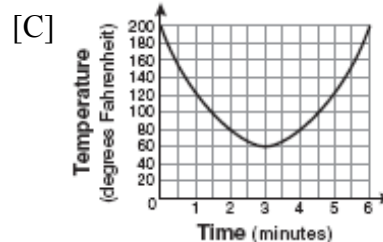
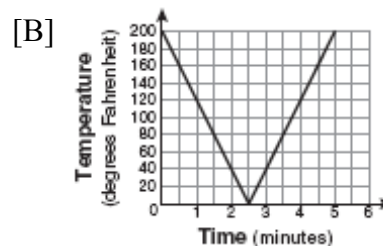
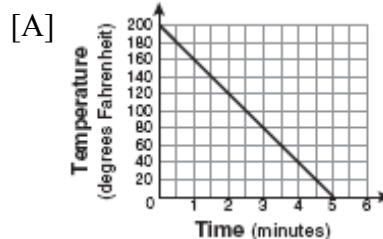
2. 060801ia, P.I. A.G.4

Which graph represents a linear function?



3. 010905ia, P.I. A.G.4

Antwaan leaves a cup of hot chocolate on the counter in his kitchen. Which graph is the best representation of the change in temperature of his hot chocolate over time?

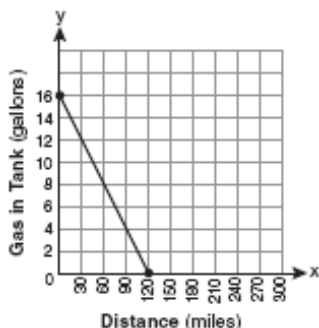


NAME: \_\_\_\_\_

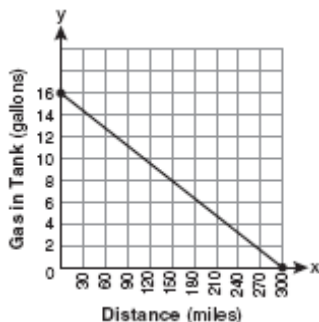
4. 080807ia, P.I. A.G.4

The gas tank in a car holds a total of 16 gallons of gas. The car travels 75 miles on 4 gallons of gas. If the gas tank is full at the beginning of a trip, which graph represents the rate of change in the amount of gas in the tank?

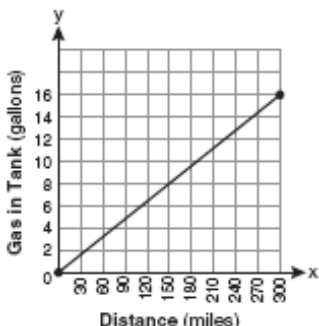
[A]



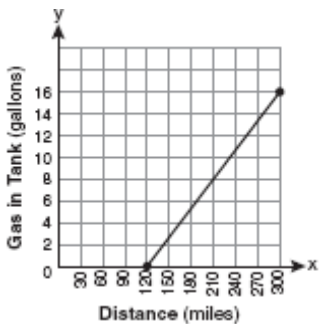
[B]



[C]

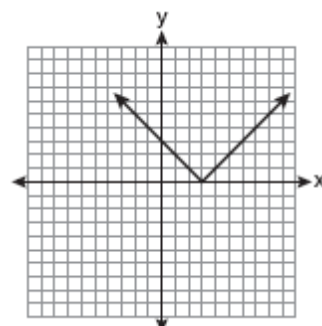


[D]



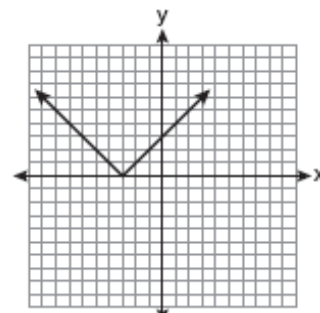
5. fall0722ia, P.I. A.G.4

The diagram below shows the graph of  $y = |x - 3|$ .

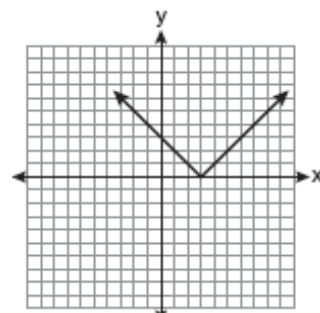


Which diagram shows the graph of  $y = -|x - 3|$ ?

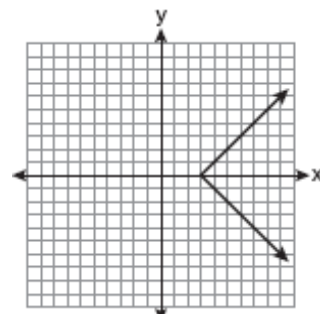
[A]



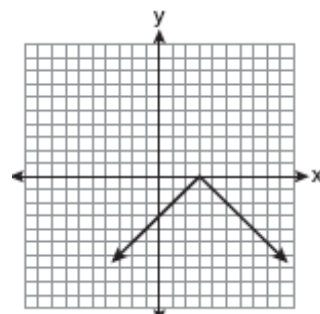
[B]



[C]



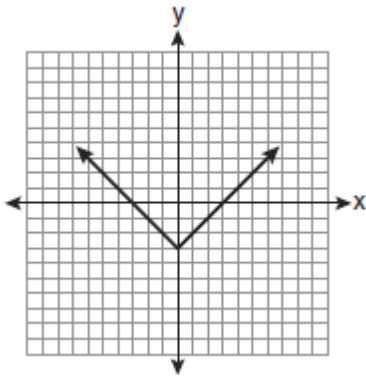
[D]



NAME: \_\_\_\_\_

6. 080925ia, P.I. A.G.4

Which equation is represented by the graph below?

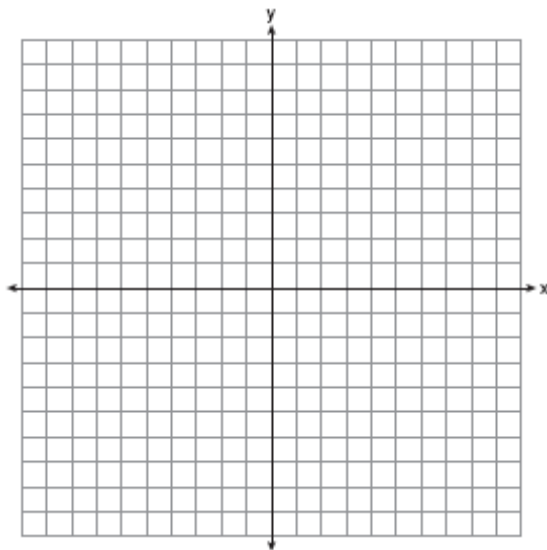


[A]  $y = (x - 3)^2$       [B]  $y = |x - 3|$

[C]  $y = x^2 - 3$       [D]  $y = |x| - 3$

7. 080835ia, P.I. A.G.4

On the set of axes below, draw the graph of  $y = 2^x$  over the interval  $-1 \leq x \leq 3$ . Will this graph ever intersect the  $x$ -axis? Justify your answer.



[1] C \_\_\_\_\_

[2] A \_\_\_\_\_

[3] D \_\_\_\_\_

[4] B \_\_\_\_\_

[5] D \_\_\_\_\_

[6] D \_\_\_\_\_

[3] A correct graph is drawn over the given interval, the function is identified as one that will not intersect the  $x$ -axis, and an appropriate justification is given.

[2] Appropriate work is shown, but one graphing error is made, but an appropriate answer and justification are given.

or [2] A correct graph is drawn over the given interval, but no further correct work is shown.

[1] Appropriate work is shown, but two or more graphing errors are made, but an appropriate answer and justification are given.

or [1] Appropriate work is shown, but one conceptual error is made, but an appropriate answer and justification are given.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[7] incorrect procedure. \_\_\_\_\_