

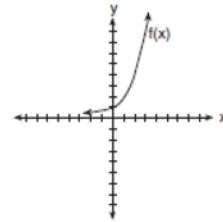
F.IF.C.7: Graphing Exponential Functions 2

- 1 Which statement about the graph of the equation $y = e^x$ is *not* true?
- 1) It is asymptotic to the x -axis.
 - 2) The domain is the set of all real numbers.
 - 3) It lies in Quadrants I and II.
 - 4) It passes through the point $(e, 1)$.

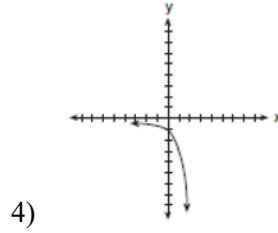
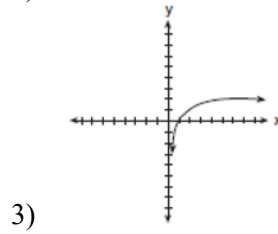
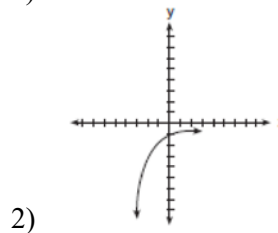
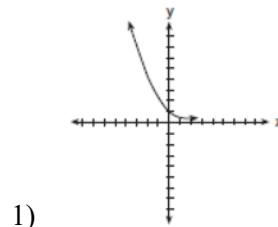
- 2 If $y = 2^x$ and $y = \left(\frac{1}{2}\right)^x$ are graphed on the same set of coordinate axes, which transformation would map one of these curves onto the other?
- 1) reflection in the y -axis
 - 2) reflection in the x -axis
 - 3) reflection in the line $y = x$
 - 4) reflection in the origin

- 3 If the graph of the equation $y = 3^x$ is reflected in the x -axis, the equation of the reflection is
- 1) $y = 3^{-x}$
 - 2) $y = -(3^x)$
 - 3) $y = \log_x 3$
 - 4) $y = x^3$

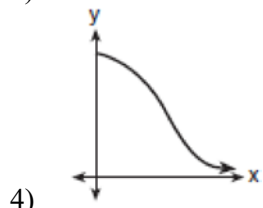
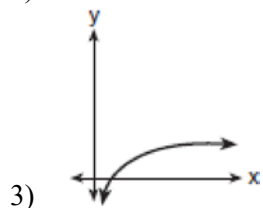
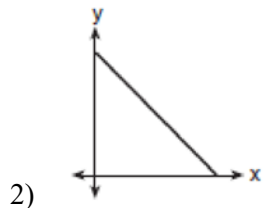
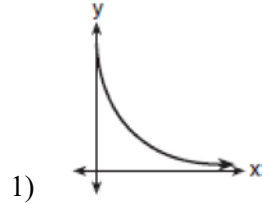
- 4 The graph of $f(x)$ is shown in the accompanying diagram.



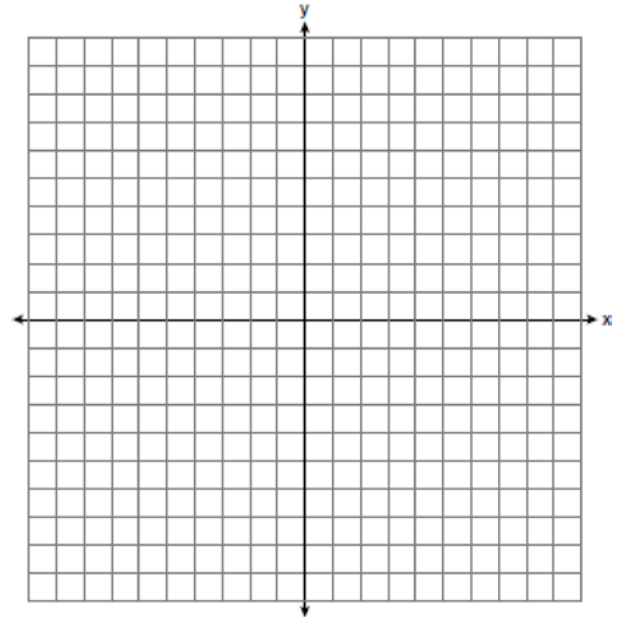
Which graph represents $f(x)$ \circ $r_{x\text{-axis}}$ \circ $r_{y\text{-axis}}$?



- 5 The strength of a medication over time is represented by the equation $y = 200(1.5)^{-x}$, where x represents the number of hours since the medication was taken and y represents the number of micrograms per millimeter left in the blood. Which graph best represents this relationship?

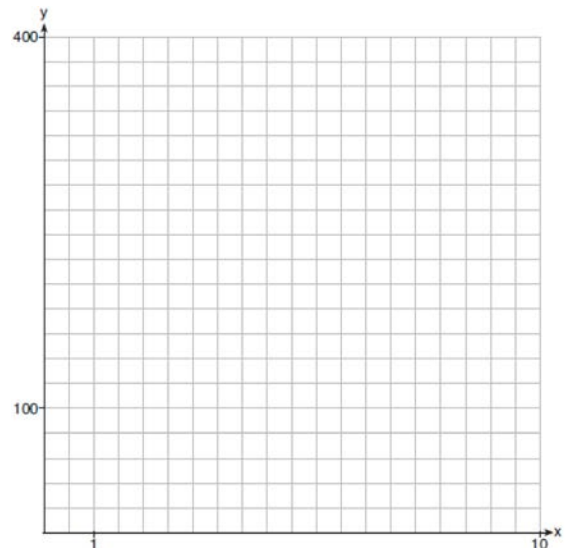


- 6 Sketch and label the graph of $y = 3^x$. The graph of the equation $y = 3^x$ is reflected in the y -axis. On the same graph, sketch this reflection.



Which is an equation of the reflection?

- (1) $y = -(3)^x$
 (2) $y = 3^{-x}$
 (3) $y = \log_3 x$
 (4) $x = 3^y$
- 7 Graph $y = 400(.85)^{2x} - 6$ on the set of axes below.



F.IF.C.7: Graphing Exponential Functions 2 Answer Section

1 ANS: 4 REF: 011219a2

2 ANS: 1

$$2^{-x} = \left(\frac{1}{2}\right)^x \text{ and } \left(\frac{1}{2}\right)^{-x} = 2^x$$

REF: fall9908b

3 ANS: 2 REF: 018925siii

4 ANS: 2 REF: 080115b

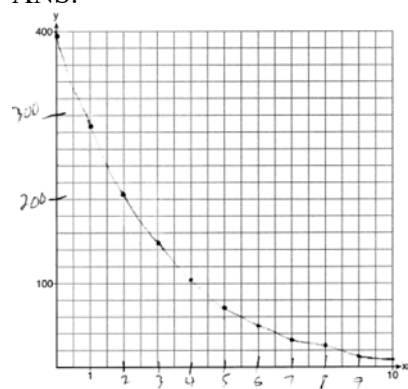
5 ANS: 1 REF: 080304b

6 ANS:

2

REF: 068637siii

7 ANS:



REF: 061729aii