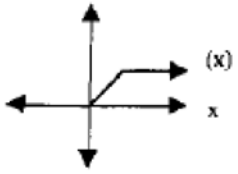
F.BF.B.3: Transformations with Functions

1 Which transformation of $y = f(x)$ moves the graph 7 units to the left and 3 units down?
1) $y = f(x + 7) - 3$
2) $y = f(x + 7) + 3$
3) $y = f(x - 7) - 3$
4) $y = f(x - 7) + 3$

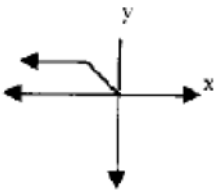
2 The minimum point on the graph of the equation $y = f(x)$ is $(-1,-3)$. What is the minimum point on the graph of the equation $y = f(x) + 5$?
1) $(-1,2)$
2) $(-1,-8)$
3) $(4,-3)$
4) $(-6,-3)$

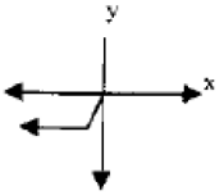
3 The maximum point on the graph of the equation $y = f(x)$ is $(2,-3)$. What is the maximum point on the graph of the equation $y = f(x - 4)$?
1) $(2,-7)$
2) $(-2,-3)$
3) $(6,-7)$
4) $(6,-3)$

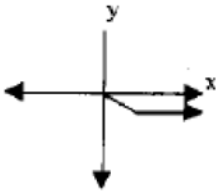
4 The graph below represents $f(x)$.

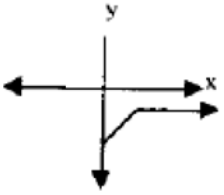


Which of the following is the graph of $-f(x)$?

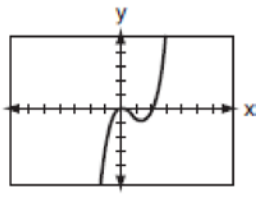
1)


2)


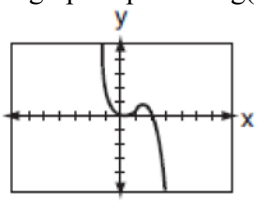
3)


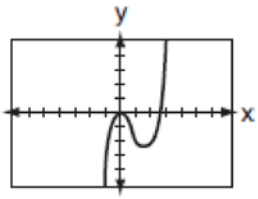
4)


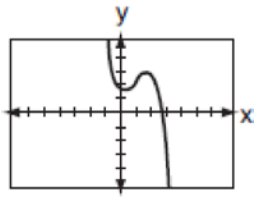
5 The accompanying graph represents the equation $y = f(x)$.

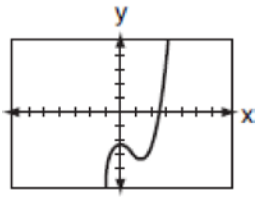


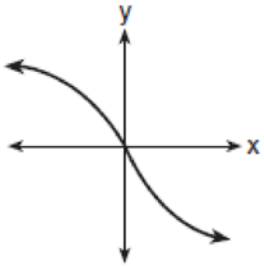
Which graph represents $g(x)$ if $g(x) = -f(x)$?

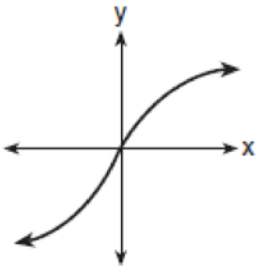
1)


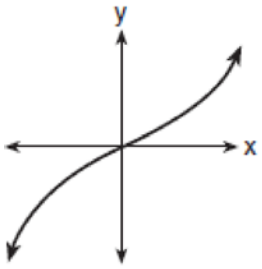
2)


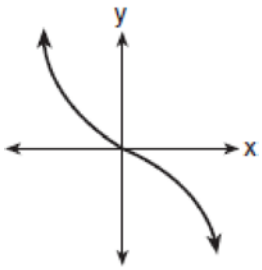
3)


4)


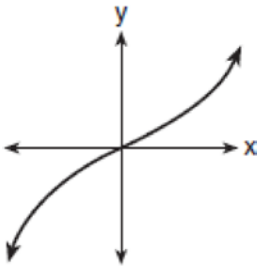
1)


2)


3)


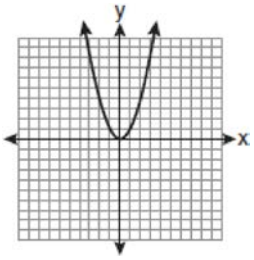
4)


6 The graph below represents $f(x)$.

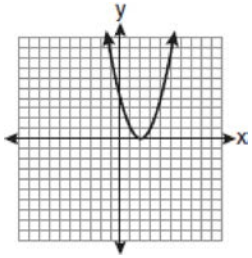


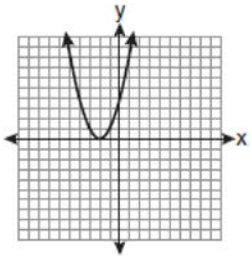
Which graph best represents $f(-x)$?

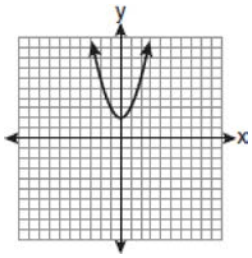
7 The graph below shows the function f(x).



Which graph represents the function f($x+2$)?

1)


2)


3)


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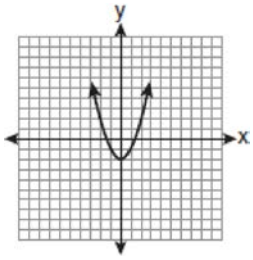
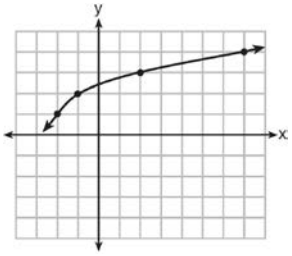
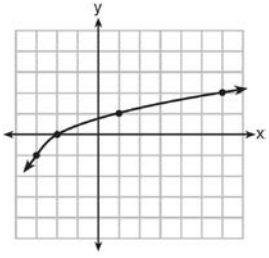
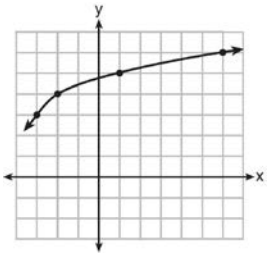


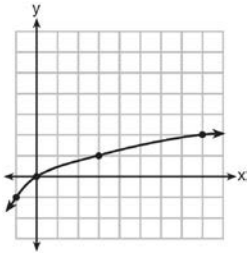
8 The graph of $y = f(x)$ is shown below.



What is the graph of $y = f(x+1) - 2$?

1)


2)


3)


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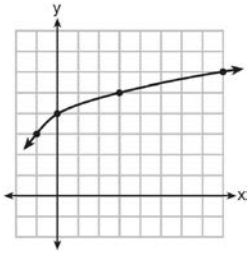
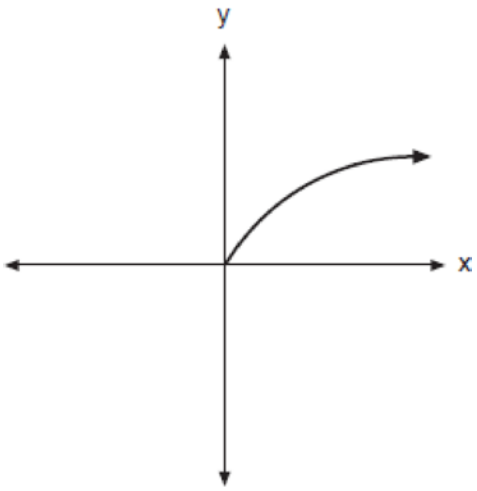
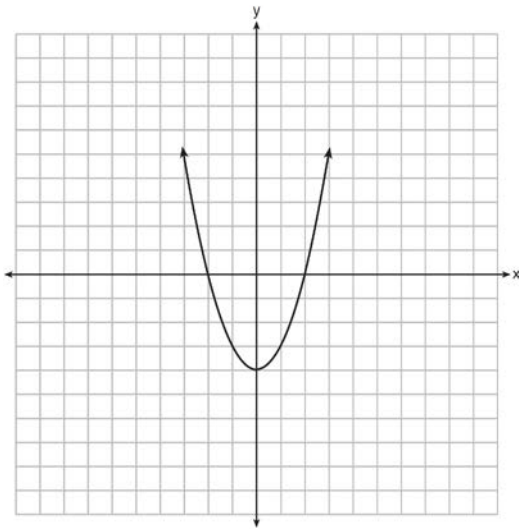


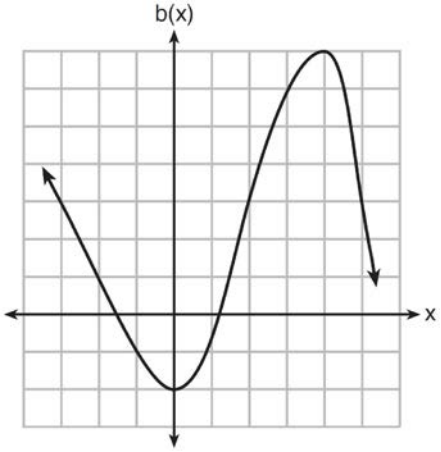
9 The entire graph of f(x) is symmetric with respect to the origin. If the accompanying graph represents f(x) for $x \geq 0$, sketch, on the same set of axes, the graph of f(x) for $x \leq 0$.



10 The function f(x) is graphed on the set of axes below. On the same set of axes, graph f($x + 1$) + 2.



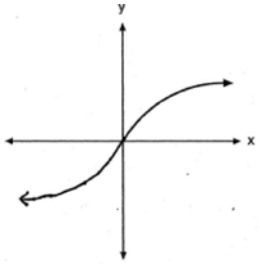
11 Richard is asked to transform the graph of $b(x)$ below.



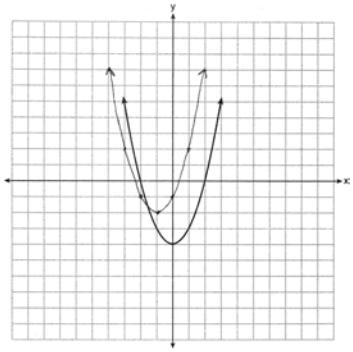
The graph of $b(x)$ is transformed using the equation $h(x) = b(x - 2) - 3$. Describe how the graph of $b(x)$ changed to form the graph of $h(x)$.

F.BF.B.3: Transformations with Functions
Answer Section

1 ANS: 1 REF: 061516a2
2 ANS: 1 REF: 081022a2
3 ANS: 4 REF: 011714a2
4 ANS: 3 REF: fall9903b
5 ANS: 1 REF: 060701b
6 ANS: 4 REF: 080406b
7 ANS: 2 REF: fall0926a2
8 ANS: 1 REF: 011620ai
9 ANS:



REF: 060821b
10 ANS:



REF: 061435a2
11 ANS:
2 units right and 3 units down.

REF: 081626ai