

HOMWORK: TRANSFORMATIONS

NAME: _____ DAY 5 DUE: _____

1. Match each graph to the function.

Exercises

In Problems 7–18, match each graph to one of the following functions.

A. $y = x^2 + 2$

B. $y = -x^2 + 2$

C. $y = |x| + 2$

D. $y = -|x| + 2$

E. $y = (x - 2)^2$

F. $y = -(x + 2)^2$

G. $y = |x - 2|$

H. $y = -|x + 2|$

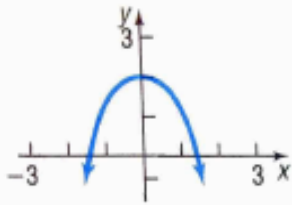
I. $y = 2x^2$

J. $y = -2x^2$

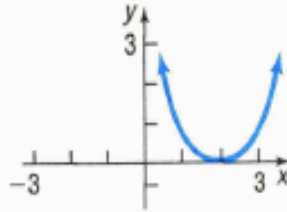
K. $y = 2|x|$

L. $y = -2|x|$

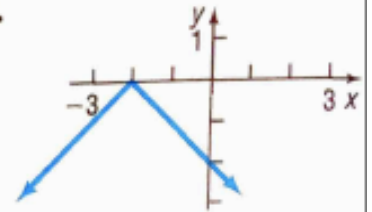
7.



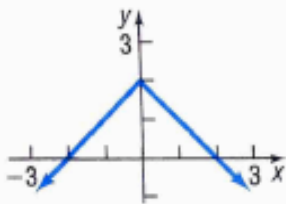
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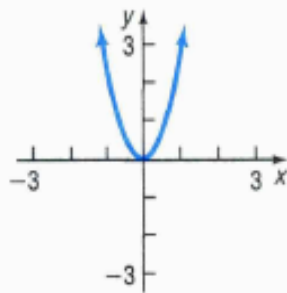
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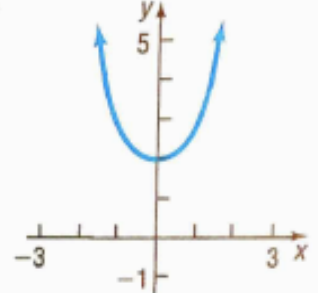
10.



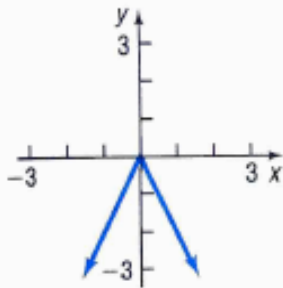
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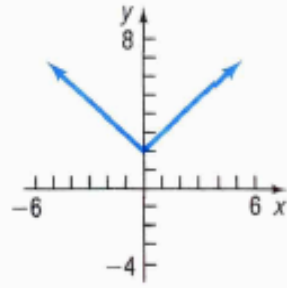
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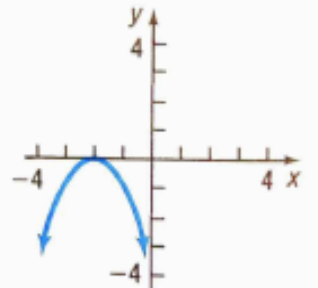
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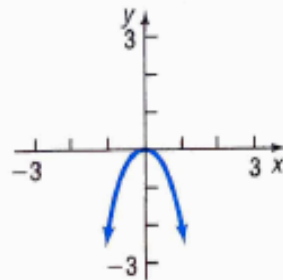
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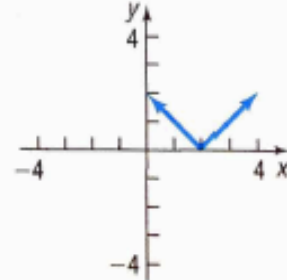
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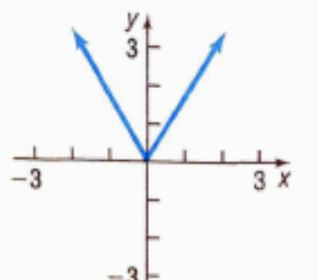
16.



17.



18.



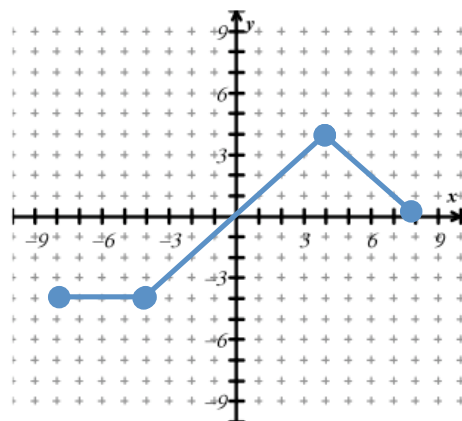
If $y = x^3$ is transformed as described below, write the new function.

2. Shifted right 4 units	3. Shifted up 4 units
4. Reflected about the y-axis	5. Vertically stretched by a factor of 4

If $y = \sqrt{x}$ is transformed as described below, write the new function.

6. Shifted up 2 units. Reflect about the x-axis. Reflect about the y-axis.	7. Reflect about the x-axis. Shift up 2 units. Shift left 3 units.
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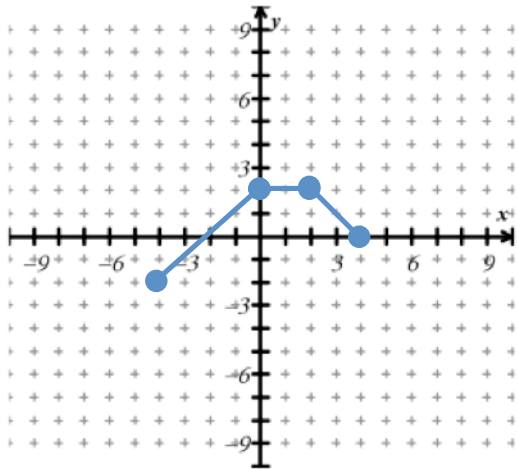
For #8 and #9, the graph of a function, f , is illustrated in the figure.



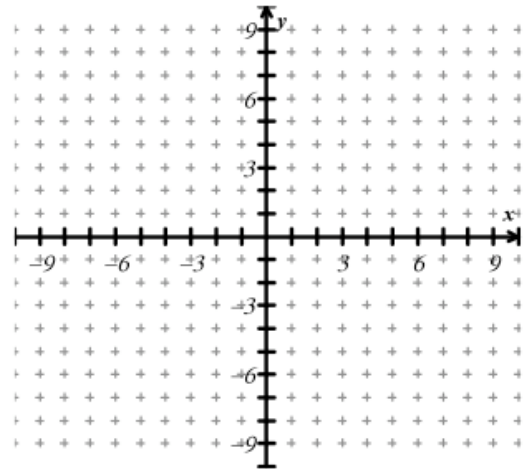
<p>8. Draw the graph of $y = f(x)$</p>	<p>9. $y = f(x)$</p>
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10. The graph of f is illustrated. Graph the following functions.

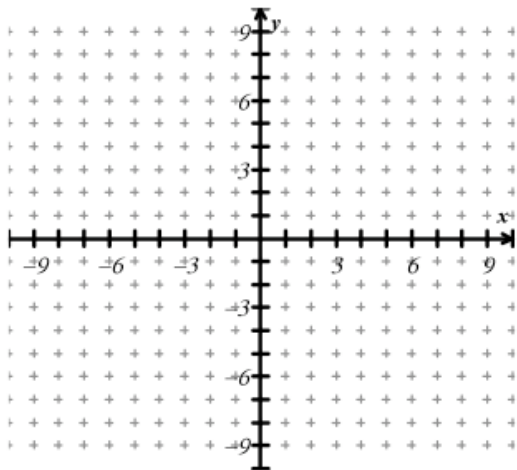
Graph of $f(x)$



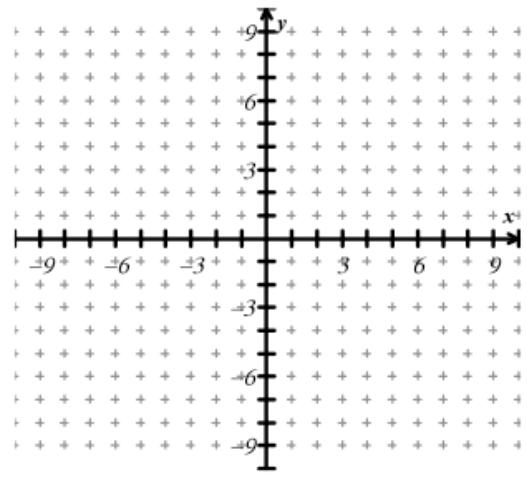
a) $G(x) = f(x + 2)$



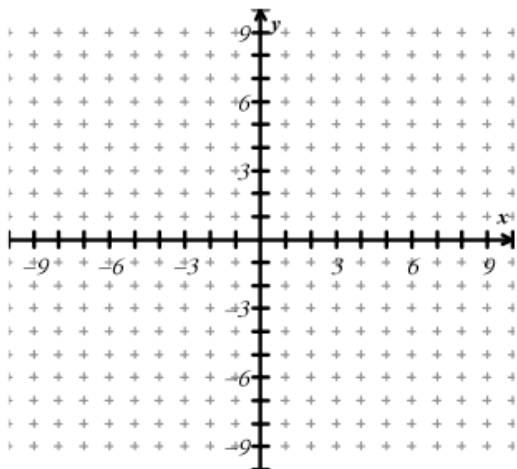
b) $P(x) = -f(x)$



c) $H(x) = f(x + 1) - 2$



d) $g(x) = f(-x)$



e) $h(x) = f(2x)$

