

LESSON
10.1
Practice A

For use with pages 628–634

Use the quadratic function to complete the table of values.

1. $y = 5x^2$

x	-2	-1	0	1	2
y	?	?	?	?	?

2. $y = -4x^2$

x	-2	-1	0	1	2
y	?	?	?	?	?

3. $y = x^2 + 6$

x	-2	-1	0	1	2
y	?	?	?	?	?

4. $y = x^2 - 8$

x	-2	-1	0	1	2
y	?	?	?	?	?

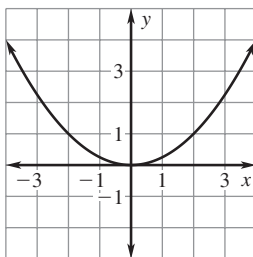
Match the function with its graph.

5. $y = -\frac{1}{2}x^2$

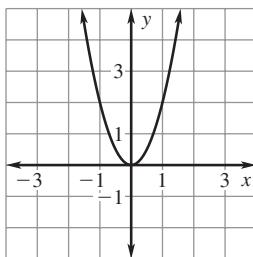
6. $y = 2x^2$

7. $y = \frac{1}{4}x^2$

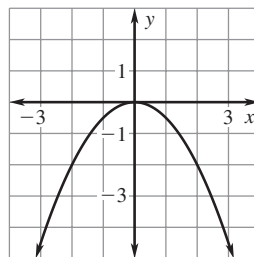
A.



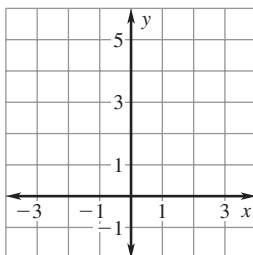
B.



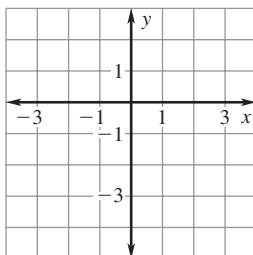
C.


 Graph the function and identify its domain and range. Compare the graph with the graph of $y = x^2$.

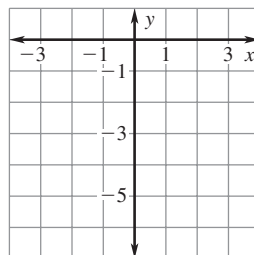
8. $y = 5x^2$



9. $y = -\frac{1}{3}x^2$

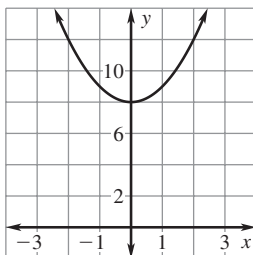


10. $y = -6x^2$

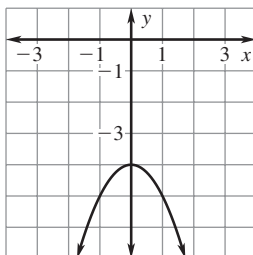


Identify the vertex and axis of symmetry of the graph.

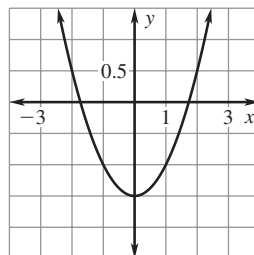
11.



12.

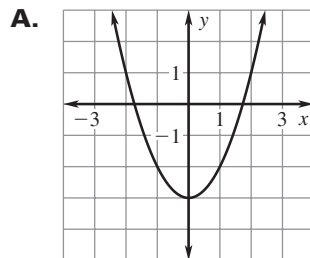


13.

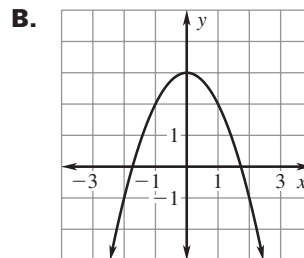


LESSON
10.1**Practice A** *continued*
For use with pages 628–634**Match the function with its graph.**

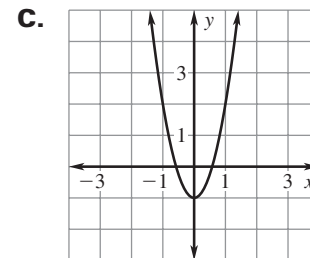
14. $y = x^2 - 3$



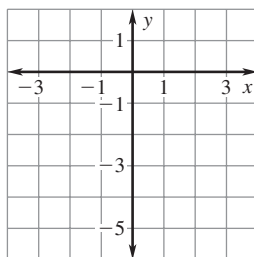
15. $y = 3x^2 - 1$



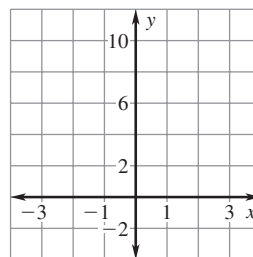
16. $y = -x^2 + 3$

**Graph the function and identify its domain and range. Compare the graph with the graph of $y = x^2$.**

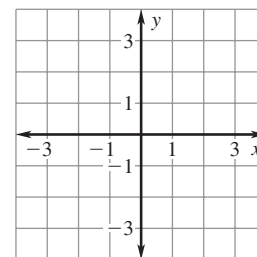
17. $y = x^2 - 5$



18. $y = x^2 + 7$



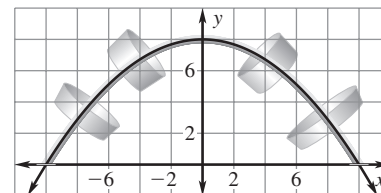
19. $y = 2x^2 - 3$

**Complete the statement.**

20. The graph of $y = x^2 + 5$ can be obtained from the graph of $y = x^2$ by shifting the graph of $y = x^2$?.
21. The graph of $y = 10x^2$ can be obtained from the graph of $y = x^2$ by ? the graph of $y = x^2$ by a factor of ?.

22. **Pot Rack** A cross section of the pot rack shown can be modeled by the graph of the function $y = -0.08x^2 + 8$ where x and y are measured in inches.

- a.** Find the domain of the function in this situation.
b. Find the range of the function in this situation.



23. **Drawer Handle** A cross section of the drawer handle shown can be modeled by the graph of the function $y = -\frac{1}{18}x^2 + 2$ where x and y are measured in centimeters.

- a.** Find the domain of the function in this situation.
b. Find the range of the function in this situation.

