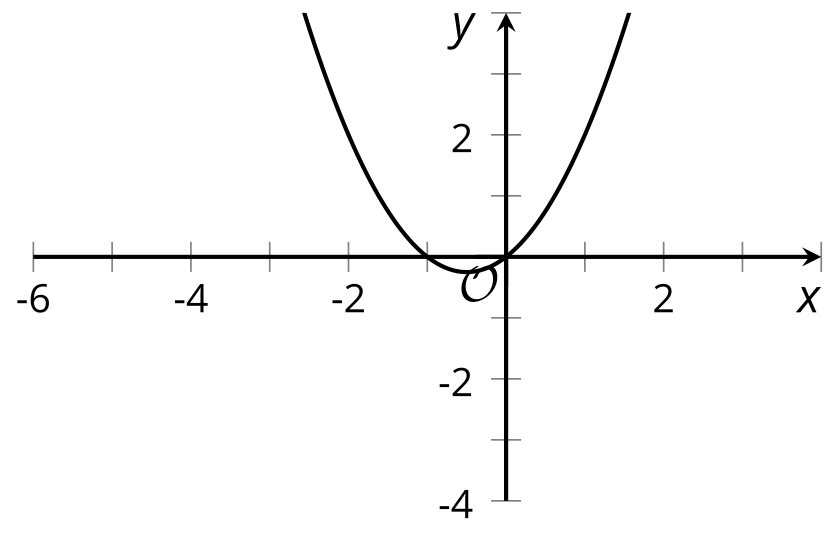
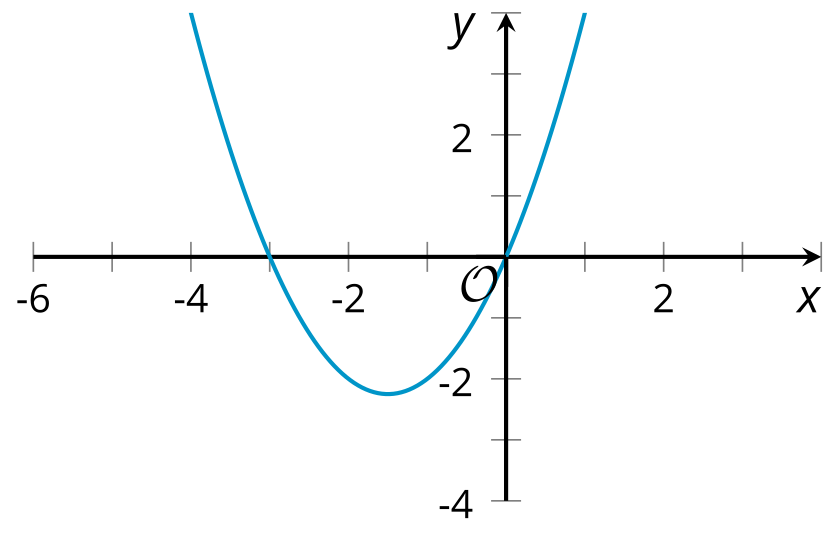
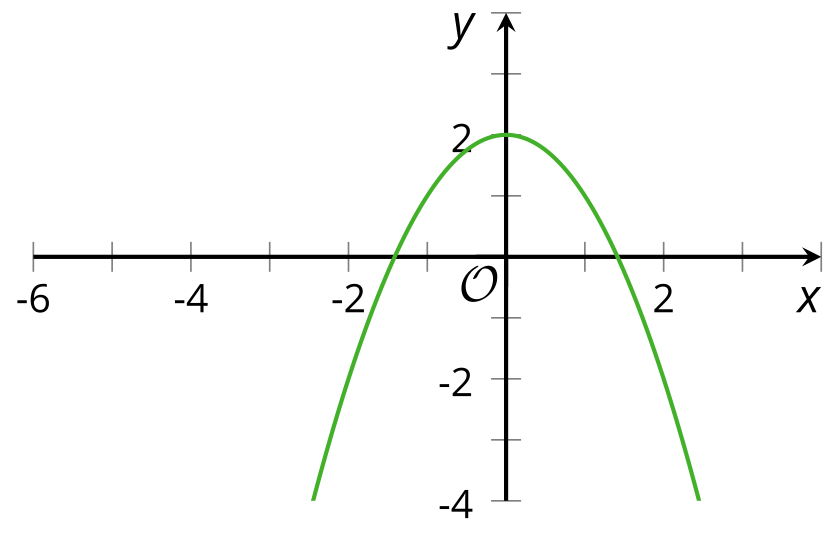
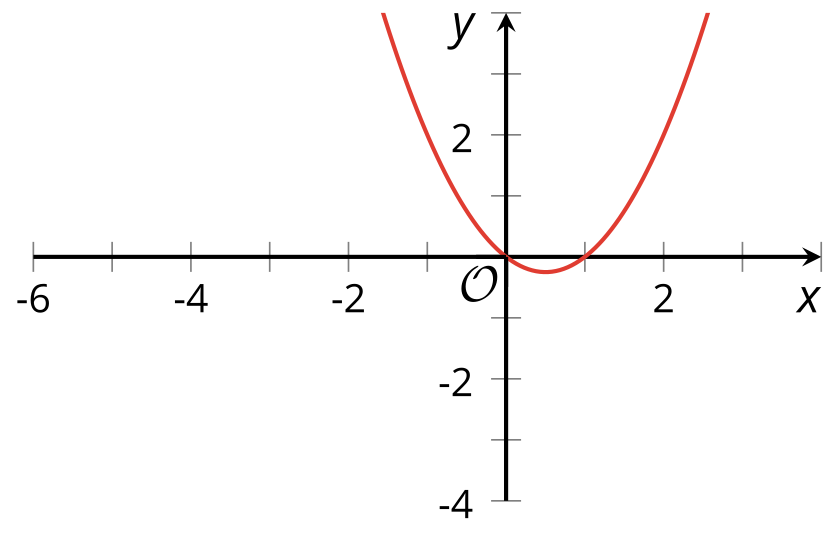
### Lesson 13 Practice Problems

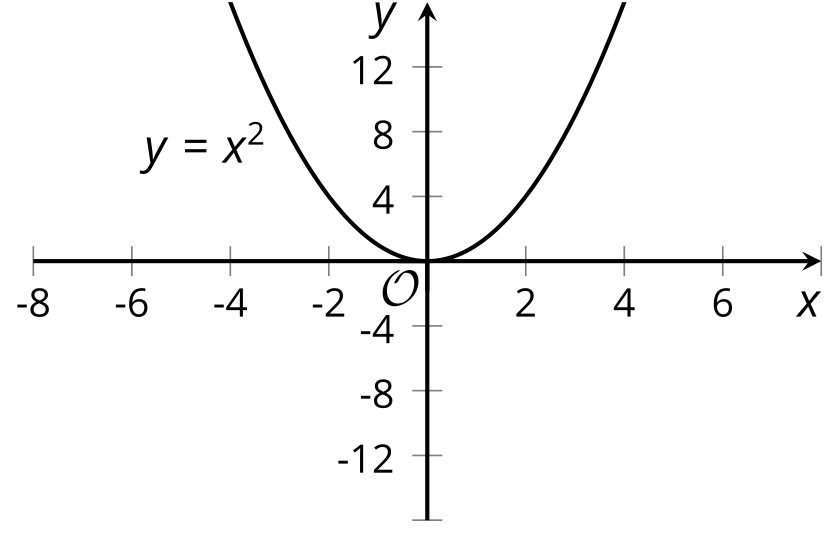
1. Here are four graphs. Match each graph with the quadratic equation that it represents.

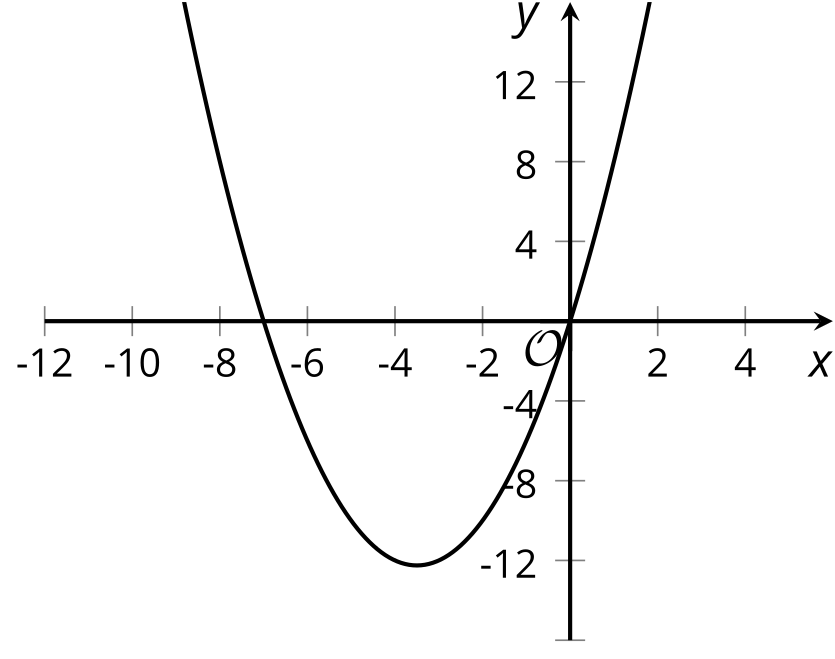
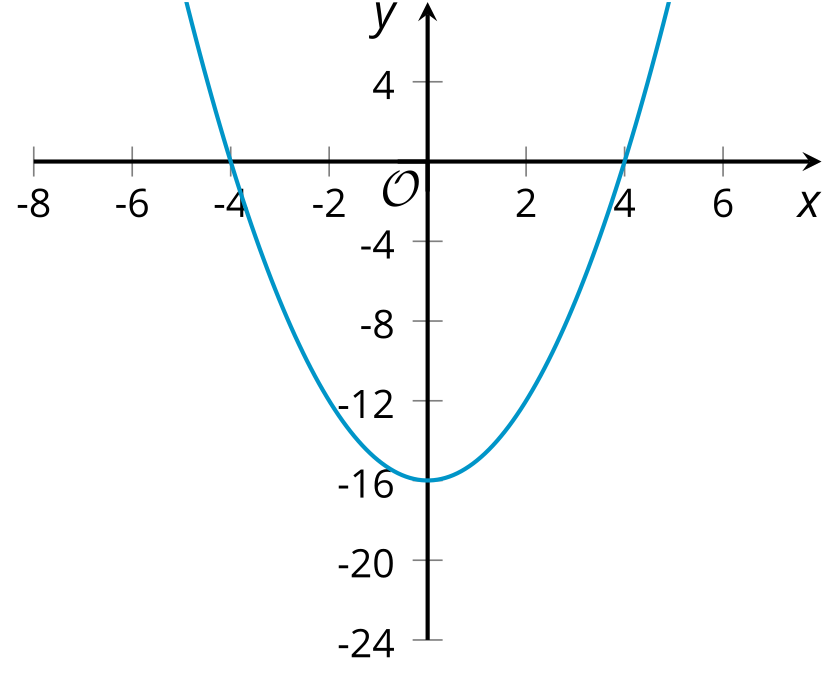
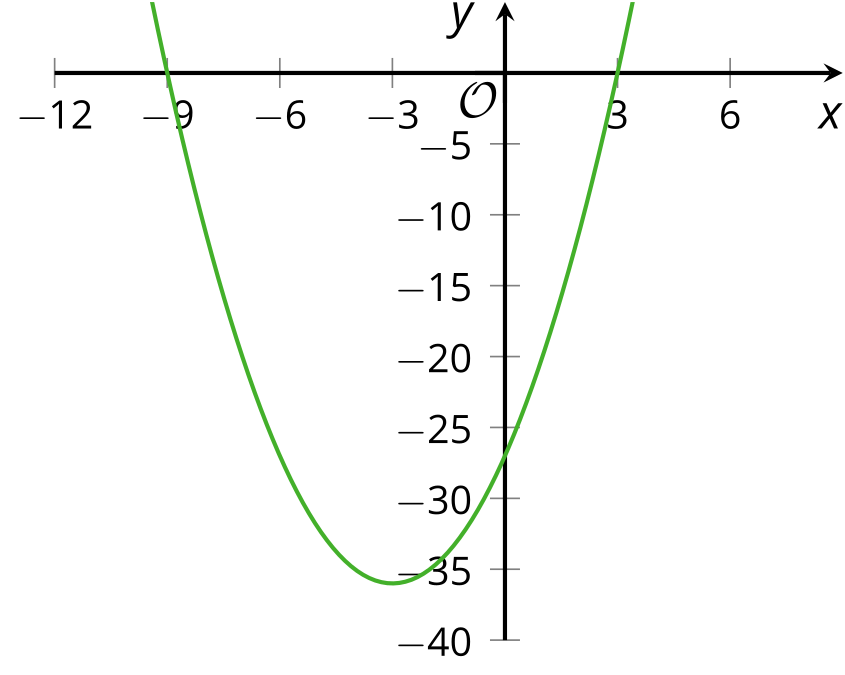
* Graph A
* 
* Graph B
* 
* Graph C
* 
* Graph D
* 
  1. Graph A
  2. Graph B
  3. Graph C
  4. Graph D

1. Complete the table without graphing the equations.

| * equation | * -intercepts | * -coordinate of the vertex |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. Here is a graph that represents .
   1. Describe what would happen to the graph if the original equation were changed to . Predict the - and -intercepts of the graph and the quadrant where the vertex is located.

   * 
   1. Sketch the graph of the equation on the same coordinate plane as .
2. Select **all** equations whose graph opens upward.
3. *Technology required*. Write an equation for a function that can be represented by each given graph. Then, use graphing technology to check each equation you wrote.

* Graph 1
* 
* Graph 2
* 
* Graph 3
* 

1. Match each quadratic expression that is written as a product with an equivalent expression that is expanded.

* (From Unit 6, Lesson 8.)

1. When buying a home, many mortgage companies require a down payment of 20% of the price of the house. What is the down payment on a $125,000 home?

* (From Unit 5, Lesson 14.)

1. A bank loans $4,000 to a customer at a annual interest rate.

* Write an expression to represent how much the customer will owe, in dollars, after 5 years without payment.
* (From Unit 5, Lesson 15.)



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