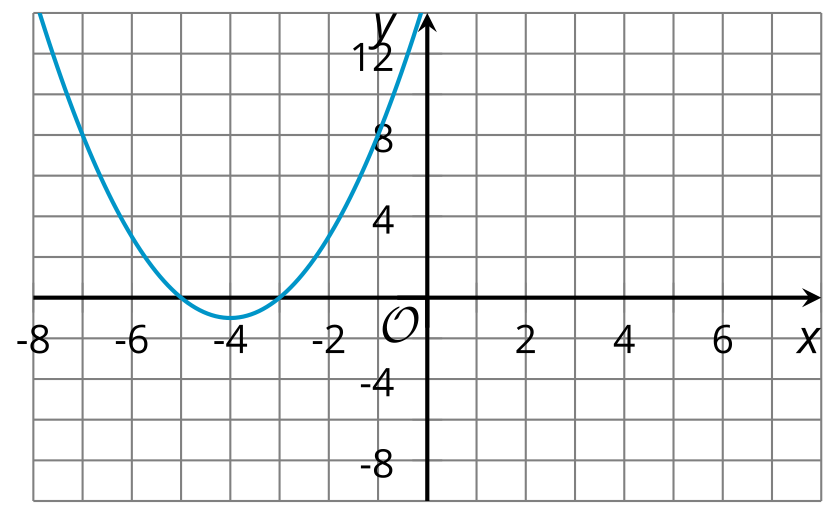
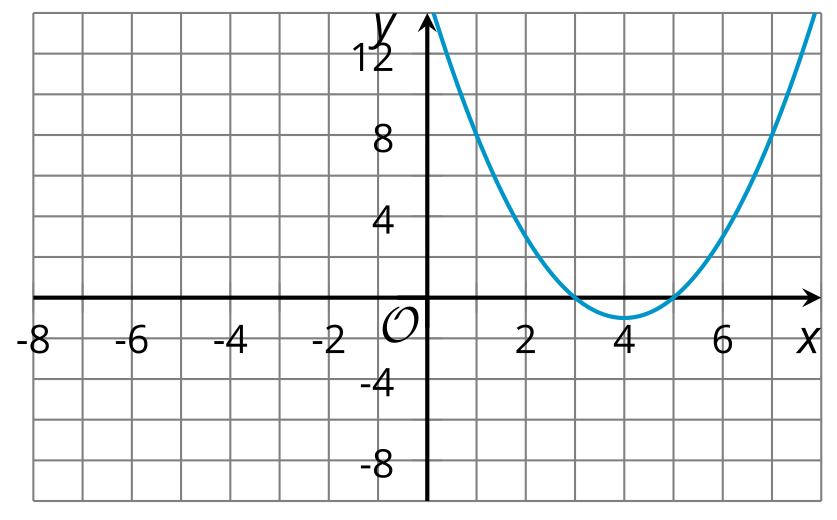
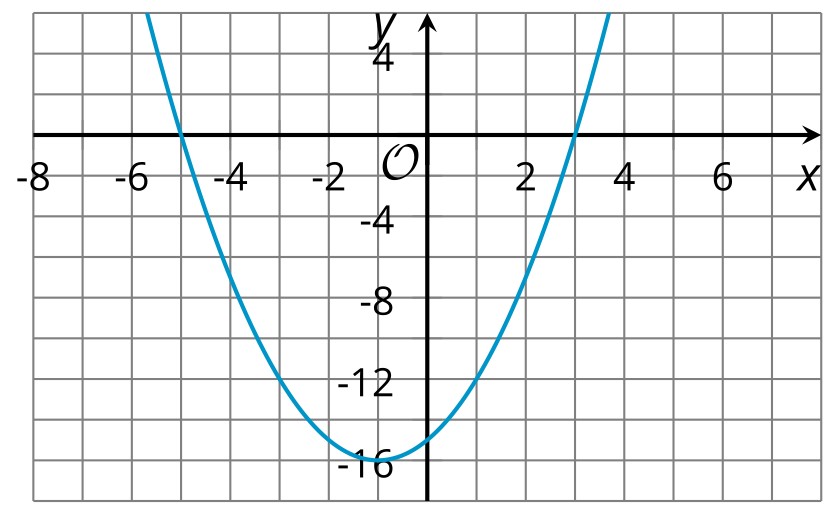
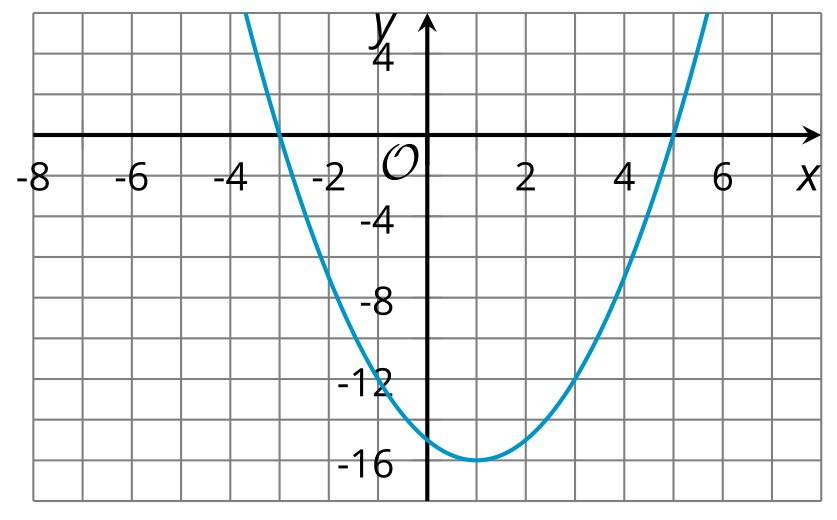
### Lesson 11 Practice Problems

1. Select **all** true statements about the graph that represents .
   1. Its -intercepts are at and .
   2. Its -intercepts are at and .
   3. Its -intercepts are at and .
   4. It has only one -intercept.
   5. The -coordinate of its vertex is -4.5.
   6. The -coordinate of its vertex is 11.
   7. The -coordinate of its vertex is 4.5.
   8. The -coordinate of its vertex is 5.5.
2. Select **all** equations whose graphs have a vertex with -coordinate 2.
3. Determine the -intercepts and the -coordinate of the vertex of the graph that represents each equation.

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

1. Which one is the graph of the equation ?

* Graph A
* 
* Graph B
* 
* Graph C
* 
* Graph D
* 
  1. Graph A
  2. Graph B
  3. Graph C
  4. Graph D
  5. What are the -intercepts of the graph of ?
  6. Find the coordinates of another point on the graph. Show your reasoning.
  7. Sketch a graph of the equation .

1. A company sells calculators. If the price of the calculator in dollars is , the company estimates that it will sell calculators.

* Write an expression that represents the revenue in dollars from selling calculators if a calculator is priced at dollars.
* (From Unit 6, Lesson 7.)

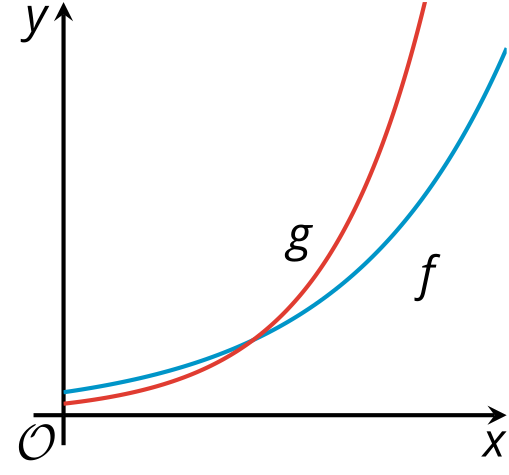
1. Is equivalent to ? Explain or show your reasoning.

* (From Unit 6, Lesson 8.)

1. Tyler is shopping for a truck. He found two trucks that he likes. One truck sells for $7,200. A slightly older truck sells for 15% less. How much does the older truck cost?

* (From Unit 5, Lesson 14.)

1. Here are graphs of two exponential functions, and .

* The function is given by while is given by .
* Based on the graphs of the functions, what can you conclude about and ?
* 
* (From Unit 5, Lesson 13.)

1. Suppose takes a student’s grade and gives a student’s name as the output. Explain why is not a function.

* (From Unit 4, Lesson 2.)



© CC BY 2019 by Illustrative Mathematics®