### Lesson 16 Practice Problems

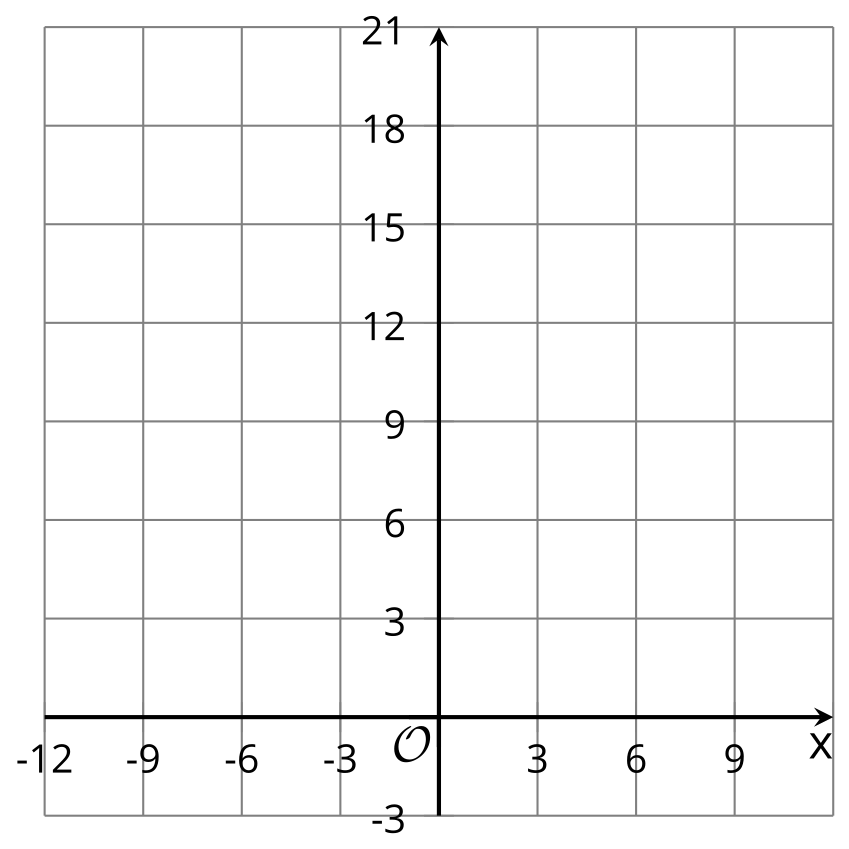
1. For each equation, identify the values of , , and that you would substitute into the quadratic formula to solve the equation.
2. Use the quadratic formula to show that the given solutions are correct.
   1. . The solutions are and .
   2. . The solutions are and .
   3. . The solutions are .
3. Select **all** the equations that are equivalent to

* (From Unit 7, Lesson 14.)

1. *Technology required.* Two objects are launched upward. Each function gives the distance from the ground in meters as a function of time, , in seconds.

* Object A:
* Object B:
* Use graphing technology to graph each function.
  1. Which object reaches the ground first? Explain how you know.
  2. What is the maximum height of each object?
* (From Unit 6, Lesson 6.)

1. Identify the values of , , and that you would substitute into the quadratic formula to solve the equation.
2. On the same coordinate plane, sketch a graph of each function.
   * Function , defined by
   * Function , defined by

* 
* (From Unit 4, Lesson 14.)



© CC BY 2019 by Illustrative Mathematics®