

Warm Up 3.5.1

Name \_\_\_\_\_ Period \_\_\_\_\_

Find three different values for  $c$  that allow the quadratic expression to factor into two binomials.

1.  $x^2 - 3x + c$

2.  $x^2 + 2x - c$

3.  $x^2 + 4x + c$

Solve each of the quadratic equations below. Be sure that you find all solutions.

4.  $4 = (x + 3)^2 - 5$

5.  $0 = x^2 - 18x + 81$

6.  $0 = (x - 8)^2 - 15$

7. Given the vertex form of a quadratic below with an  $a$  value of 1 solve it for  $x$ .

$$0 = (x - h)^2 + k$$

Are there any values  $h$  or  $k$  for which the solution would not make sense? Why?

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