

Factor the Special Products 1

Perfect Square Trinomials and Difference of Squares

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Factor the perfect square trinomial completely.

1)  $z^2 + 2z + 1$

1) \_\_\_\_\_

2)  $z^2 - 10z + 25$

2) \_\_\_\_\_

3)  $z^2 + 12z + 36$

3) \_\_\_\_\_

4)  $z^2 + 10z + 25$

4) \_\_\_\_\_

5)  $x^2 + 16x + 64$

5) \_\_\_\_\_

6)  $16x^2 - 24xy + 9y^2$

6) \_\_\_\_\_

7)  $49x^2 - 42x + 9$

7) \_\_\_\_\_

Factor the binomial completely.

8)  $z^2 - 81$

8) \_\_\_\_\_

9)  $144 - w^2$

9) \_\_\_\_\_

10)  $81x^2 - 49$

10) \_\_\_\_\_

11)  $x^2 - \frac{16}{81}$

11) \_\_\_\_\_

Answer Key

Testname: FACTORSPECIAL

1)  $(z + 1)^2$

2)  $(z - 5)^2$

3)  $(z + 6)^2$

4)  $(z + 5)^2$

5)  $(x + 8)^2$

6)  $(4x - 3y)^2$

7)  $(7x - 3)^2$

8)  $(z + 9)(z - 9)$

9)  $(12 - w)(12 + w)$

10)  $(9x + 7)(9x - 7)$

11)  $\left(x + \frac{4}{9}\right)\left(x - \frac{4}{9}\right)$