

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

## Factoring Special Cases Bell Work

Factor the following difference of two square.

1.  $4x^2 - 64$

2.  $25y^2 - 16$

3.  $a^2 - 4$

4.  $25a^2 - 36$

5.  $x^2 - 36$

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## Factoring Special Cases Bell Work

Factor the following perfect square trinomials.

6.  $4y^2 - 32y + 64$

7.  $b^2 + 10b + 25$

8.  $d^2 - 14d + 49$

9.  $y^2 + 12y + 36$

10.  $9a^2 - 36a + 36$

## Factoring Special Cases Bell Work

Answer:

Factor the following difference of two square.

1.  $4x^2 - 64$

Answer:

$$4x^2 = (2x)(2x)$$

$$64 = (8)(8)$$

$$(2x + 8)(2x - 8)$$

3.  $a^2 - 4$

Answer:

$$a^2 = (a)(a)$$

$$4 = (2)(2)$$

$$(a + 2)(a - 2)$$

5.  $x^2 - 36$

Answer:

$$x^2 = (x)(x)$$

$$36 = (6)(6)$$

$$(x + 6)(x - 6)$$

2.  $25y^2 - 16$

Answer:

$$25y^2 = (5y)(5y)$$

$$16 = (4)(4)$$

$$(5y + 4)(5y - 4)$$

4.  $25a^2 - 36$

Answer:

$$25a^2 = (5a)(5a)$$

$$36 = (6)(6)$$

$$(5a + 6)(5a - 6)$$

Factor the following perfect square trinomials.

6.  $4y^2 - 32y + 64$

Answer:

$$4y^2 = (2y)(2y)$$

$$64 = (8)(8)$$

$$-32y = -16y - 16y$$

$$(2y - 8)^2$$

8.  $d^2 - 14d + 49$

Answer:

$$d^2 = (d)(d)$$

$$49 = (7)(7)$$

$$-14d = -7d - 7d$$

$$(d - 7)^2$$

10.  $9a^2 - 36a + 36$

Answer:

$$9a^2 = (3a)(3a)$$

$$36 = (6)(6)$$

$$-36a = -18a - 18a$$

$$(3a - 6)^2$$

7.  $b^2 + 10b + 25$

Answer:

$$b^2 = (b)(b)$$

$$25 = (5)(5)$$

$$10b = 5b + 5b$$

$$(b + 5)^2$$

9.  $y^2 + 12y + 36$

Answer:

$$y^2 = (y)(y)$$

$$36 = (6)(6)$$

$$12y = 6y + 6y$$

$$(y + 6)^2$$