

Name: _____ Period: _____ Date: _____

Factoring Special Cases Exit Quiz

Factor the following polynomials with special cases.

1. $x^2 - 49$

2. $4y^2 - 9$

3. $4a^2 - 4a + 1$

4. $a^2 - 100$

5. $x^2 + 22x + 121$

Factoring Special Cases Exit Quiz

Answer:

Factor the following polynomials in $ax^2 + bx + c$ form.

1. $x^2 - 49$

Answer:

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

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

$$(x + 7)(x - 7)$$

2. $4y^2 - 9$

Answer:

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

$$9 = (3)(3)$$

$$(2y + 3)(2y - 3)$$

3. $4a^2 - 4a + 1$

Answer:

$$4a^2 = (2a)(2a)$$

$$1 = (-1)(-1)$$

$$-4a = -2a - 2a$$

$$(2a - 1)^2$$

4. $a^2 - 100$

Answer:

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

$$-100 = (-10)(-10)$$

$$(a + 10)(a - 10)$$

5. $x^2 + 22x + 121$

Answer:

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

$$121 = (11)(11)$$

$$22x = 11x + 11x$$

$$(x + 11)^2$$