

Name: _____ Period: _____ Date: _____

Factoring $ax^2 + bx + c$ Exit Quiz

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

1. $2x^2 + 9x + 10$

2. $3y^2 - 9y + 6$

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

4. $3a^2 + 10a + 3$

5. $2x^2 + 11x + 12$

Factoring $ax^2 + bx + c$ Exit Quiz**Answer:**Factor the following polynomials in $ax^2 + bx + c$ form.

1. $2x^2 + 9x + 10$

Answer:

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

$$10 = (2)(5)$$

$$9x = 4x + 5x$$

$$(x + 2)(2x + 5)$$

2. $3y^2 - 9y + 6$

Answer:

$$3y^2 = (y)(3y)$$

$$6 = (-1)(-6)$$

$$-9y = -3y - 6y$$

$$(y - 1)(3y - 6)$$

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

Answer:

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

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

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

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

4. $3a^2 + 10a + 3$

Answer:

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

$$3 = (3)(1)$$

$$10a = 9a + a$$

$$(a + 3)(3a + 1)$$

5. $2x^2 + 11x + 12$

Answer:

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

$$12 = (3)(4)$$

$$11x = 3x + 8x$$

$$(2x + 3)(x + 4)$$