

Revisiting Factoring Quadratics - Example 1

Revisiting Factoring Quadratics - Example 1

Example: Write the quadratic in factored form:

$$x^2 + 4x - 21 = (x - r_1) \cdot (x - r_2)$$

Revisiting Factoring Quadratics - Example 1

Example: Write the quadratic in factored form:

$$x^2 + 4x - 21 = (x - r_1) \cdot (x - r_2)$$

▶ Recall: We can factor quadratics in this slightly different way as long as we can find the roots r_1 and r_2

Revisiting Factoring Quadratics - Example 1

Example: Write the quadratic in factored form:

$$x^2 + 4x - 21 = (x - r_1) \cdot (x - r_2)$$

▶ Recall: We can factor quadratics in this slightly different way as long as we can find the roots r_1 and r_2

▶ The Quadratic Formula gives us a way to find the roots r_1 and r_2 of $x^2 + 4x - 21$

Revisiting Factoring Quadratics - Example 1

Example: Write the quadratic in factored form:

$$x^2 + 4x - 21 = (x - r_1) \cdot (x - r_2)$$

▶ Recall: We can factor quadratics in this slightly different way as long as we can find the roots r_1 and r_2

▶ The Quadratic Formula gives us a way to find the roots r_1 and r_2 of

$$x^2 + 4x - 21$$

▶ We can find the roots to be:

Revisiting Factoring Quadratics - Example 1

Example: Write the quadratic in factored form:

$$x^2 + 4x - 21 = (x - r_1) \cdot (x - r_2)$$

▶ Recall: We can factor quadratics in this slightly different way as long as we can find the roots r_1 and r_2

▶ The Quadratic Formula gives us a way to find the roots r_1 and r_2 of

$$x^2 + 4x - 21$$

▶ We can find the roots to be: $r_1, r_2 = -7, 3$

Revisiting Factoring Quadratics - Example 1

Example: Write the quadratic in factored form:

$$x^2 + 4x - 21 = (x - r_1) \cdot (x - r_2)$$

▶ Recall: We can factor quadratics in this slightly different way as long as we can find the roots r_1 and r_2

▶ The Quadratic Formula gives us a way to find the roots r_1 and r_2 of

$$x^2 + 4x - 21$$

▶ We can find the roots to be: $r_1, r_2 = -7, 3$

So, we get the factored form:

Revisiting Factoring Quadratics - Example 1

Example: Write the quadratic in factored form:

$$x^2 + 4x - 21 = (x - r_1) \cdot (x - r_2)$$

▶ Recall: We can factor quadratics in this slightly different way as long as we can find the roots r_1 and r_2

▶ The Quadratic Formula gives us a way to find the roots r_1 and r_2 of

$$x^2 + 4x - 21$$

▶ We can find the roots to be: $r_1, r_2 = -7, 3$

So, we get the factored form:

$$x^2 + 4x - 21 = (x - (-7)) \cdot (x - 3)$$

Revisiting Factoring Quadratics - Example 1

Example: Write the quadratic in factored form:

$$x^2 + 4x - 21 = (x - r_1) \cdot (x - r_2)$$

▶ Recall: We can factor quadratics in this slightly different way as long as we can find the roots r_1 and r_2

▶ The Quadratic Formula gives us a way to find the roots r_1 and r_2 of

$$x^2 + 4x - 21$$

▶ We can find the roots to be: $r_1, r_2 = -7, 3$

So, we get the factored form:

$$x^2 + 4x - 21 = (x - (-7)) \cdot (x - 3)$$

If we wish, we can simplify: $-(-7) = 7$

Revisiting Factoring Quadratics - Example 1

Example: Write the quadratic in factored form:

$$x^2 + 4x - 21 = (x - r_1) \cdot (x - r_2)$$

▶ Recall: We can factor quadratics in this slightly different way as long as we can find the roots r_1 and r_2

▶ The Quadratic Formula gives us a way to find the roots r_1 and r_2 of

$$x^2 + 4x - 21$$

▶ We can find the roots to be: $r_1, r_2 = -7, 3$

So, we get the factored form:

$$x^2 + 4x - 21 = (x - (-7)) \cdot (x - 3)$$

If we wish, we can simplify: $-(-7) = 7$

$$x^2 + 4x - 21 = (x + 7) \cdot (x - 3)$$