

Solving Quadratic Equations: Completing the Square Color by Number

Directions: Solve each quadratic equation below by completing the square. Then, color your answer on the picture according to the color indicated. Leave your answers in simplest fraction/radical form. Show your work on a separate sheet of paper.

Quadratic Equation

Roots

Color

Orange

1.
$$x^2 + 8x - 14 = 6$$

2.
$$x^2 + 5x = -4$$
 Green

3.
$$x^2 + 7x + 10 = 0$$
 Purple

4.
$$x^2 + 12x + 16 = -19$$
 Blue

5.
$$x^2 - 4x - 91 = 7$$
 Purple

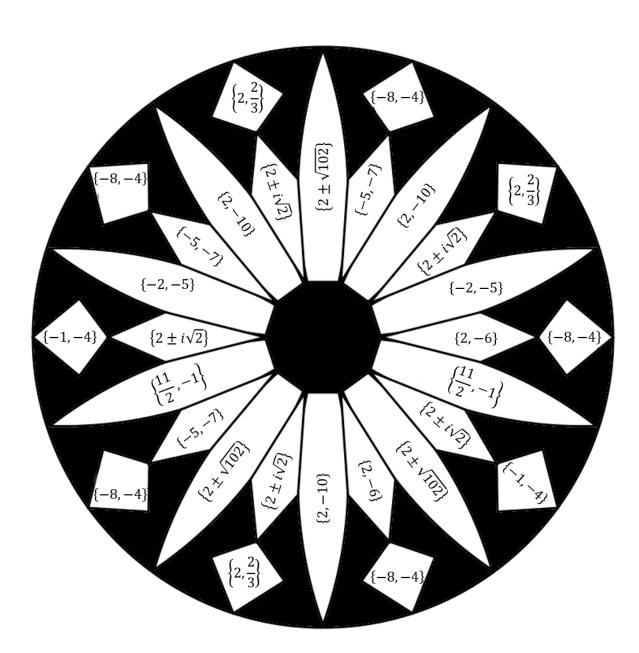
6.
$$x^2 - 4x + 1 = -5$$
 Teal

7.
$$x^2 + 12x = -32$$
 Pink

8.
$$10x^2 - 45x - 12 = 43$$
 Orange

9.
$$x^2 = 12 - 4x$$

10.
$$3x^2 = -4 + 8x$$
 Green



Solving Quadratic Equations: Completing the Square Color by Number Answer Key

Directions: Solve each quadratic equation below by completing the square. Then, color your answer on the picture according to the color indicated. Leave your answers in simplest fraction/radical form. Show your work on a separate sheet of paper.

Quadratic Equation

Color

1.
$$x^2 + 8x - 14 = 6$$

$$\{2, -10\}$$

Orange

2.
$$x^2 + 5x = -4$$

$$\{-1, -4\}$$

Green

3.
$$x^2 + 7x + 10 = 0$$

$$\{-2, -5\}$$

Purple

4.
$$x^2 + 12x + 16 = -19$$

$$\{-5, -7\}$$

Blue

5.
$$x^2 - 4x - 91 = 7$$

$$\{2 \pm \sqrt{102}\}$$

Purple

6.
$$x^2 - 4x + 1 = -5$$

$$\{2 \pm i\sqrt{2}\}$$

Teal

7.
$$x^2 + 12x = -32$$

$$\{-8, -4\}$$

Pink

8.
$$10x^2 - 45x - 12 = 43$$

$$\left\{\frac{11}{2}, -1\right\}$$

Orange

9.
$$x^2 = 12 - 4x$$

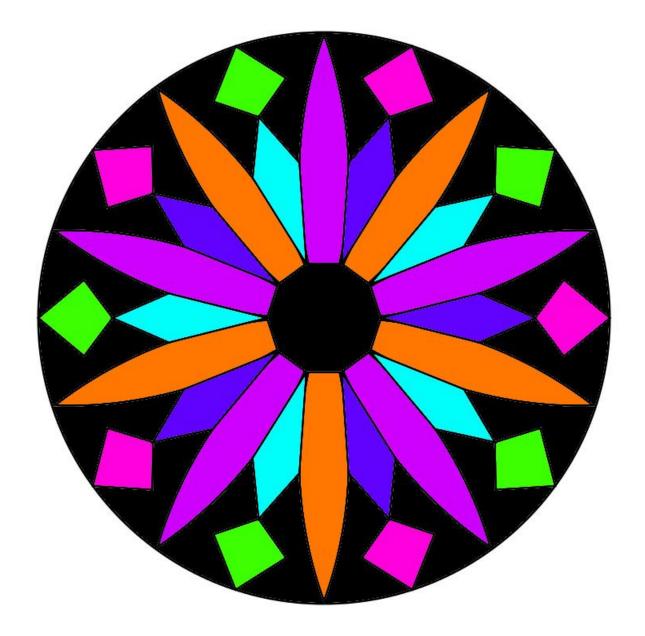
$$\{2, -6\}$$

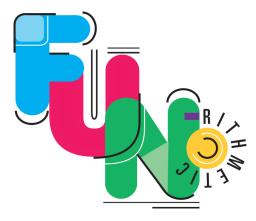
Blue

10.
$$3x^2 = -4 + 8x$$

$$\left\{2, \frac{2}{3}\right\}$$

Name_____Date____





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