

5.8 Practice Quiz - Completing the Square

Find the value that forms a perfect square trinomial.

1. $x^2 + 24x + \underline{\hspace{2cm}}$

2. $x^2 - 11x + \underline{\hspace{2cm}}$

1. _____

2. _____

3. Which of the following statements is true?

- A. All Quadratic equations have one solution.
- B. The square root of a negative number provides 2 imaginary solutions
- C. The coefficient is the term in an equation that is not attached to a variable.
- D. All the above.
- E. None of the above

4. Which of the following statements is true?

- A. The constant is the term in an equation that is not attached to a variable.
- B. The process of **completing the square** is performed to allow you to factor a **Perfect Square Trinomial** on left side of a quadratic equation.
- C. The **Constant** is the number in front of **x**.
- D. **None of the above**
- E. **A and B are true**
- F. **B and C are true**

3. _____

4. _____

Factor the following Perfect Square Trinomials.

5.

$x^2 + 24x + 144 = (\hspace{2cm})$

6.

$9x^2 + 48x + 64 = (\hspace{2cm})$

5. _____

6. _____

Solve the following by **Completing the Square**. (Show all necessary steps.)

6. $x^2 - 10x + 24 = 0$

7. $x^2 - 4x = -3$

6. _____

7. _____

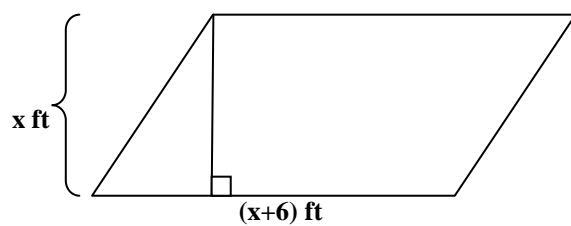
8. $x^2 + 6x + 3 = 0$

9. $x^2 + 8x + 20 = 0$

8. _____

9. _____

10. Find the value of x, for the given Parallelogram if the area = 48ft^2 (Hint: Area = base x height)



10. _____

Multiple Choice.

11. What are the solutions of $x^2 - 10x - 15 = 0$?

A. $5 \pm 2i\sqrt{10}$ B. $-5 \pm 2\sqrt{10}$

C. $5 \pm 2\sqrt{10}$ D. $-5 \pm 2i\sqrt{10}$

11. _____