

The background features a dark blue gradient with a starry space pattern. On the left side, there are several mathematical diagrams. A large circular scale with degree markings from 140 to 260 is prominent. Other diagrams include circles with arrows indicating rotation, dashed lines, and various geometric shapes. The overall aesthetic is technical and educational.

COMPLETING THE SQUARE

DIRECTED LEARNING ACTIVITY

COMPLETING THE SQUARE

OBJECTIVE:

- To understand how to use the Square root property and solving quadratic equations by completing the square.

VOCABULARY:

- Square root
- Complex Numbers
- Rationalizing.

SQUARE ROOT PROPERTY

Watch this video on how to use the square root property. [Square root property.](#)

PRACTICE

Solve each equation.

1. $3x^2 = 75$

2. $25x^2 + 16 = 0$

3. $(x + 2)^2 = -9$

4. $2(x + 2)^2 = 16$

COMPLETING THE SQUARE

Watch this video on how to solve quadratic equations by completing square. [Completing square.](#)

PRACTICE

Solve each equation by completing the square.

1. $x^2 - 8x + 1 = 0$

2. $x^2 + 2x + 2 = 0$

3. $3x^2 + 6x + 1 = 0$