CHAPTER 10 QUADRATIC EQUATIONS AND FUNCTIONS

In this chapter, you are going to examine quadratic graphs and their functions. You will solve quadratic equations by various techniques such as factoring, finding square roots, completing the square and applying the quadratic formula.

Exploring Quadratic Graphs (Textbook pages 510-516)

Vocabulary: quadratic function, standard form of a quadratic function, parabola, axis of symmetry, vertex, minimum, maximum

☐ Class Assignment: Workbook page 128 (1-27 odd)
☐ Challenge: Workbook page 128 (28-30)
☐ Homework: Textbook page 513-514 (1-19 odd)

Quadratic Functions (Textbook pages 517-523)

Key Concept: The graph of \( y = ax^2 + bx + c \), where \( a \neq 0 \), has the line \( \frac{-b}{2a} \) as its axis of symmetry. The x-coordinate of the vertex is \( \frac{-b}{2a} \).

☐ Class Assignment 1: Workbook page 130 (1-21 odd)
☐ Class Assignment 2: Workbook page 130 (10-36 even)
☐ Challenge: Workbook page 130 (37-39)
☐ Homework 1: Textbook page 520 (1-13), Textbook pages 520-521 (17-31 odd)
☐ Homework 2: Textbook pages 520-521 (17-31 odd)

Solving Quadratic Equations (Textbook pages 529-534)

Vocabulary: quadratic equation, standard form of a quadratic equation

☐ Class Assignment 1: Workbook page 134 (1-21)
☐ Class Assignment 2: Workbook page 134 (22-33)
☐ Challenge: Workbook page 134 (52-56)
☐ Homework 1: Textbook page 531 (1-17 odd)
☐ Homework 2: Textbook page 531 (2-18 even)

Factoring to Solve Quadratic Equations (Textbook pages 536-540)

Key Concept: For every real number \( a \) and \( b \), then \( a \) or \( b = 0 \).

☐ Class Assignment 1: Workbook page 136 (1-18)
☐ Class Assignment 2: Workbook page 136 (19-30)
☐ Challenge: Workbook page 136 (31-34)
☐ Homework 1: Textbook page 538 (1-21 odd)
☐ Homework 2: Textbook page 538 (27-34)