**Unit 5- Absolute and Reciprocal Functions and Equations \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Lesson 7.3 Absolute Value Equations**

Specific Outcome 2. Graph and analyze absolute value functions (limited to linear and quadratic functions) to solve problems.

**Example 1: Solve an Absolute Value Equation**

Solve |*x* – 3| = 7.

**Your Turn:** Solve |6 – *x*| = 2 graphically and algebraically.



Definition:

Extraneous Root:

**Example 2: Absolute Value Equation With an Extraneous Solution**

Solve |2*x* – 5| = 5 – 3*x*.

**Your Turn:** Solve |*x* + 5| = 4*x* – 1.

**Example 3: Absolute Value Equation With No Solution**

Solve |3*x* – 4| + 12 = 9.

**Your Turn:** Solve |4*x* – 5| + 9 = 2.

Assignment p. 389 questions : 4 a,c, 5 a,c, 6b, 7, 10, 11, 12, 13, 15