

MATH 111 WORKSHEET 4

1. Find all solutions of the equation. Check your solutions.

$$\sqrt{x} + \sqrt{x - 20} = 10$$

2. Find all solutions of the equation. Check your solutions.

$$\sqrt{2x + 13} - 5 = x$$

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3. Find all solutions of the equation. Check your solutions.

$$|x^2 + 5x| = 7x + 35$$

4. Solve.

$$x^{2/3} + 5x^{1/3} + 6 = 0$$

5. Solve.

$$x^3 - 2x^2 - 3x = -6$$

6. Solve by completing the square.

$$3x^2 + 6x = 15$$

7. Solve using the Quadratic Formula. Simplify.

$$2x^2 - 8x = -1$$

8. Solve.

$$\frac{2x}{x+2} - \frac{x+30}{x^2-3x-10} = \frac{x}{x-5}$$