

Additional Equation-Solving Techniques
Section 2.6

- (1) Solve the following equation $2x^{-6} - 4x^{-3} = 0$
- (2) Solve the following equation $7x^{-1} + 3x^{-1/2} + 2 = 0$
- (3) Solve the following equation $3x^{3/2} - 5x^{1/2} + 12 = 0$
- (4) Solve the following equation $\sqrt{x^2 - 5x} = \sqrt{x - 8}$
- (5) Solve the following equation $\sqrt{4x^2 + 12x + 1} - 6x = 9$
- (6) Solve the following equation $\sqrt{5 - 2x} - \sqrt{x + 6} = \sqrt{x + 3}$
- (7) Solve the following equation $\sqrt{52x + 3} - \sqrt{x - 2} = \sqrt{x + 1}$
- (8) The diagonal of a rectangle is 10 inches and the area is 45 square inches. Find the dimensions of the rectangle.
- (9) A paper drinking cup in the shape of a right circular cone is constructed from 125 square centimeters of paper. If the height of the cone is 10 centimeters, find the radius of the right circular cone. Hint: the surface area of the cone is $S = \pi r\sqrt{r^2 + h^2}$ where h is the height and r the radius of the cone.