

Solving Radical Equations Video Lecture

Section 10.6

Course Learning Objective:

Solve certain types of radical equations.

Weekly Learning Objectives:

Solve equations that contain radical expressions.

Solving Radical Equations:

How to solve radical equations:

- 1) Isolate the radical
- 2) Raise both sides of the equation to the n th power where n is the index of the radical appearing in the equation
- 3) Classify the resulting equation (linear, quadratic, or radical) and solve accordingly
- 4) Check for extraneous solutions

$$\sqrt{y+2} = 5$$

$$\sqrt{5x-1} + 3 = 0$$

$$6\sqrt{p} = \sqrt{30p+24}$$

$$\sqrt{50+7k} = k+8$$

$$\sqrt{m+1} - \sqrt{m-2} = 1$$

$$\sqrt{2x-5} = 1 + \sqrt{x-3}$$

$$\sqrt[3]{3y^2 - 4y + 6} = \sqrt[3]{3y^2 - 2y + 8}$$

$$\sqrt{2} k = 8$$