

## Radical Equations – Practice (and solutions)

Solve each of the following equations. Show all necessary work

$$1. \sqrt{x+1} + 5 = x$$

$$7. \frac{1}{x} = \frac{3}{\sqrt{4x+1}}$$

$$2. x - \sqrt{x-1} = 7$$

$$8. \sqrt{x+2} = -x - 2$$

$$3. \sqrt{x} - 2 = x - 22$$

$$9. \sqrt{x^2 - 8x} = 3$$

$$4. 3 + \sqrt{x} = 1 + x$$

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

$$10. \sqrt{2x+5} + x = 5$$

$$6. x = \frac{\sqrt{2-3x}}{3}$$

Answers:

$$1. x = 8$$

$$6. x = \frac{1}{3}$$

$$9. x = -1, 9$$

$$2. x = 10$$

$$10. x = 2$$

$$3. x = 25$$

$$4. x = 4$$

$$7. x = \frac{2+\sqrt{13}}{9}$$

$$5. x = \frac{1}{4}$$

$$8. x = -2$$