

## Polynomial Functions – Radical Equations and Inequalities

Solve each equation. Check your solution.

1.  $\sqrt{4x+9} - 3 = 5$

2.  $\sqrt{1-7y} = 3$

3.  $\sqrt[4]{2x-9} = 2$

4.  $\sqrt[3]{7v+5} = -3$

5.  $\sqrt{7+x} - 5 = \sqrt{6-x}$

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

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

8.  $\sqrt{x^2 - 2x + 1} = 2x + 5$

9.  $2\sqrt{x} = \sqrt{4x-3} + 1$

Solve each inequality. Check your solution.

10.  $\sqrt{2z-3} < 5$

11.  $\sqrt{3x+5} > 1$

12.  $\sqrt{3x+5} < 9$

13.  $\sqrt{2x+3} > 5$