

Topic 5.8
Solving Radical Equations and Inequalities
Homework

Name: _____

Date: _____

Solve each equation, if possible. Be sure to check for extraneous solutions.

1. $\sqrt{x} = 12$

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

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

4. $\sqrt{x-4} = 6$

5. $x\sqrt{x} = 8$

6. $6 + \sqrt{3x-2} = 10$

7. $\sqrt{x+4} = \sqrt{3x-6}$

8. $\sqrt{6x-2} \geq \sqrt{4x+8}$

9. $\sqrt{4x-12} < 8$

10. $\sqrt{x-6} \leq \sqrt{x} + \sqrt{2}$

11. $\sqrt{2x} + \sqrt{6} > \sqrt{2x+4}$

12. $\sqrt{x+3} + \sqrt{x} > \sqrt{5}$