

**Solving Other Types of Equations/Inequalities
Worksheet**

Solve (be sure to check for extraneous solutions):

1. $\sqrt{2x + 3} - 7 = 0$

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

3. $(x + 1)^{\frac{3}{2}} - 2 = 25$

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

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

6. $3(x - 2)^{\frac{1}{2}} = 9$

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

Solve AND Graph Solution of Inequalities:

8. $2|3x - 2| = 14$

9. $|3x - 6| + 3 < 15$

10. $3|2x - 1| \geq 21$

11. $-|4 - 8x| = 12$

12. $\frac{1}{2}|3x + 5| = 6x + 4$

13. $2|3x - 7| = 10x - 8$

14. $\left|\frac{x-3}{2}\right| + 2 < 6$