

## Simplify Radical Equations - Practice

Simplify the following problems. Be sure to check your answers.

1.  $x^3 = 8$

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

3.  $x = \sqrt{8x - 7}$

4.  $x^2 - 36 = 0$

5.  $(x + 5)^2 = 7$

6.  $x + 2 = \sqrt{-2x - 1}$

7.  $x + 2 = \sqrt{21}$

8.  $(x + 3)^2 = 116$

9.  $(x - 3)^2 = -64$

10.  $x = \sqrt{6x + 29}$

### Solutions:

1.  $x = 2$  2.  $x = 1$

3.  $x = 1, 7$  4.  $x = -6, 6$

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

6.  $x = -1$  7.  $x = -2 - \sqrt{21}, -2 + \sqrt{21}$

$$8. x = -3 - 2\sqrt{29}, -3 + 2\sqrt{29}. x = 3 - 8i, 3 + 8i \quad 10. x = 3 - \sqrt{28}, 3 + \sqrt{28}$$