

### Homework: Other Types of Equations - Key

In Problems 1-3, solve each polynomial equation by factoring and then using the zero-product principle

1. $x = 0, -2, 2$	2. $x = \frac{1}{8}, \frac{-2}{3}, \frac{2}{3}$
3. $x = 0, 3, \frac{-3}{2} \pm \frac{3\sqrt{3}}{2}i$	

In Problems 4-8, solve each radical equation.

4. $x = 1$	5. $x = 6$
6. $x = 1$	7. No solution
8. $x = 1$	

In Problems 9-10, solve each equation with rational exponents

9. $x = 2$	10. $x = -24, 30$
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In Problems 11-15, solve each equation by making an appropriate substitution

11. $x = -2, 2, -3, 3$	12. $x = 4, 9$
13. $x = -1, 125$	14. $x = \frac{1}{9}, 4$
15. $x = 5, -4, 3, -2$	

In Problems 16-19, solve each absolute value equation or indicate that the equation has no solution

16. $x = -4, 4$	17. $x = \frac{1}{5}, -1$
18. $x = \frac{5}{3}, \frac{-5}{3}$	19. No solution

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In Problem 20, solve each absolute value equation or indicate that the equation has no solution

20. $x = \frac{1}{2}, \frac{-5}{8}$	
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