

<p>Steps:</p> <ol style="list-style-type: none"> 1. Set equation equal to zero. 2. Factor 3. Make each factor equal to zero and solve. 4. This is your solution set. 	<p>Example: Solve: $-x^2 = x - 6$</p>
<p>1. $6x^2 + 3x = 0$</p>	<p>2. $9x^2 - 1 = 0$</p>
<p>3. $x^2 - 2x - 8 = 0$</p>	<p>4. $16x^2 + 56x + 49 = 0$ (notice 16 and 49 are perfect squares)</p>
<p>5. $3 + 5x - 2x^2 = 0$</p>	<p>6. $2x^2 = 19x + 33$</p>
<p>7. $2x^2 + 8x - 6 = x^2 + 4x + 6$</p>	<p>8. $y = 3x^2 - 4x - 15$</p>
<p>9. Evaluate: $2x^3 - 6x^2 + 5x - 6$, when $x = 3$</p>	<p>10. Simplify $(2x + 5y) + (3x - 2y)$</p>

11. Multiply: $(2x - 9)^2$

12. Simplify $(6x^3 - 2x^2 + 8x) - (4x^3 - 11x + 10)$

13. Simplify $(x - 3y)(x + y)$

14. Simplify $(4x^2 - 4x - 7)(x + 3)$

17. Multiply: $4x(2x - 3) - 5(2 - x)$

18. Solve $5 + 4x - 7 = 4x - 2 - x$

19. Solve $6x - (3x + 8) = 16$

20. Solve and graph: $2x + 3 < x + 15$

21. Solve and graph: $-3 - 2x \geq 12 + x$

22. Solve and graph: $3(x - 2) + 4 \geq 2(2x - 3)$.