Math 11 · Quadratic Equations

Solve by Factoring

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step 1, clean up and write in order step 2, factor step 3, write each factor = 0 and solve

 $[#1] \quad x^2 - 2x = 15 \qquad [#2] \quad 6x^2 = 9x \qquad [#3] \quad 3x^2 - 4 = 11x$

[#4] x² + 30 = 11x [#5] 2x(x - 4) = 4 - x [#6] 3x² - 3x - 60 = 0

Solve by Isolating

 $[#1] \quad 5x^2 - 45 = 0 \qquad [#2] \quad 8 - 9x^2 = 0 \qquad [#3] \quad (3x + 1)^2 = 17$

$$[#4] \quad (6x-8)^2 = 28 \qquad [#5] \quad 5x^2 + 10 = 0$$

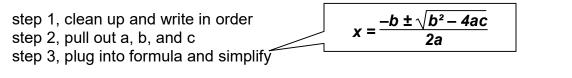
Solve by Completing the Square

step 1, clean up and write in order step 2, divide away any a–value and complete the square step 3, isolate x

[#1] $x^2 + 6x = 2$ [#2] $x^2 - 4 = 4x$ [#3] $x^2 - 8x + 18 = 0$

 $[#4] \quad x^2 - 3x - 2 = 0 \qquad [#5] \quad 5x^2 + 2x - 1 = 0$

Solve by Formula



 $[\#1] \quad 9x^2 - 2 = 5x \qquad [\#2] \quad 5x^2 + 2x - 1 = 0 \qquad [\#3] \quad 2(x^2 - 1) = x(1 - 2x)$

 $[#4] \quad 21x^2 + 8x - 5 = 0$