1. Solve each of the following quadratics.

   a) \((3n - 2)(4n + 1) = 0\)

   b) \(m(m - 3) = 0\)

   c) \(3k^2 + 72 = 33k\)

   d) \(n^2 = -18 - 9n\)

2. Simplify each of the following.

   a) \(\sqrt{-200}\)

   b) \(\sqrt{-144}\)

   c) \(3\sqrt{54}\)

   d) \(\sqrt{20} / \sqrt{121}\)

   e) \(\sqrt{49} / \sqrt{196}\)

   f) \(\sqrt{-148}\)

3. Each of the following are a result from using the quadratic formula to find the solutions to a quadratic equation. Write each of the following into simplest form. No decimal answers are allowed.

   a) \(x = \frac{4 \pm \sqrt{-36}}{2}\)

   b) \(x = \frac{-5 \pm \sqrt{225}}{10}\)

   c) \(x = \frac{2 \pm \sqrt{24}}{4}\)
4. Solve each of the following by using the Quadratic Formula: 
\[ x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \].

a) \( 2x^2 - 5x + 3 = 0 \)

b) \( 2x^2 - x + 17 = 2 \)

c) \( 2x^2 - x - 4 = 2 \)

d) \( x^2 - 4x - 14 = 0 \)

e) \( 9x^2 + 11 = 6x \)

f) \( x^2 = -3x + 30 \)

5. Solve each of the following equations by using the Square Root Property. \( \text{Hint: Get the x-squared by itself on one side of the equation.} \)

a) \( k^2 + 6 = 6 \)

b) \( 25x^2 = 1 \)

c) \( 9x^2 - 5 = -617 \)
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d) \(-4(x - 1)^2 = 24\)  
e) \((x - 3)^2 + 12 = 76\)  
f) \(5(x + 8)^2 + 40 = 10\)

6. Solve each quadratic equation by completing the square. *(Hint: Move the constant to the one side of the equation then find the ‘blank’)*

a) \(x^2 + 14x = 51\)  
b) \(x^2 - 12x = -45\)

c) \(t^2 + 6t + 8 = 0\)  
d) \(t^2 - 2t - 3 = 0\)

e) \(y = x^2 + 16x + 71\)  
f) \(x^2 + 4x - 7 = -7\)

g) \(y = x^2 - 6x + 5\)