

September 4

## Quadratic Formula Part 2

Ex1 Solve:  $9x^2 - 4x - 11 = 0$

step 1:  $9x^2 - 4x - 11 = 0$

step 2: a: 9    b: -4    c: -11

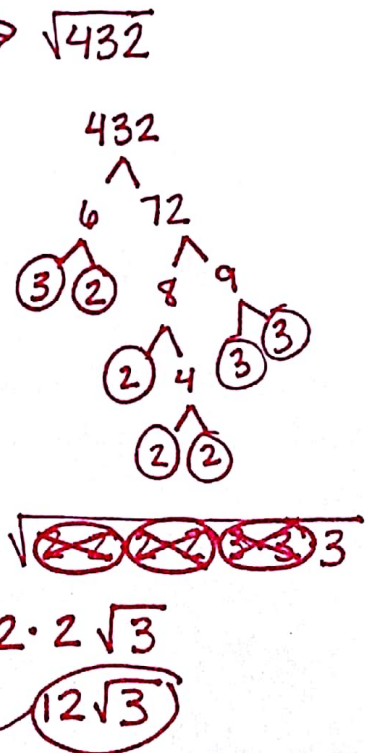
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

step 3:  $x = \frac{-(-4) \pm \sqrt{(-4)^2 - 4(9)(-11)}}{2(9)}$

step 4:  $x = \frac{4 \pm \sqrt{432}}{18}$

step 5: Simplify radical.

$$x = \frac{4 \pm 12\sqrt{3}}{18}$$



Ex2 Solve:  $8m^2 + 6m + 1 = 0$

a: 8    b: 6    c: 1

$$m = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$m = \frac{-(6) \pm \sqrt{(6)^2 - 4(8)(1)}}{2(8)}$$

$$m = \frac{-6 \pm \sqrt{4}}{16} \longrightarrow \sqrt{4}$$

$$m = \frac{-6 \pm 2}{16}$$

4  
2 2  
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2 ✓  
2

Ex3 Solve:  $x^2 + 8 = 5x$

$$\begin{array}{r|l} x^2 + 8 & -5x \\ \hline x^2 - 5x + 8 & = 0 \end{array}$$

a: 1    b: -5    c: 8

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{-(-5) \pm \sqrt{(-5)^2 - 4(1)(8)}}{2(1)}$$

$$x = \frac{5 \pm \sqrt{-7}}{2} \longrightarrow \sqrt{-7}$$

$$x = \frac{5 \pm i\sqrt{7}}{2}$$

7  
^  
no tree,  
prime