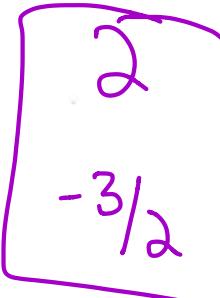


➤ Quadratic Formula →
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

- ✓ Used to solve for x in the equation $ax^2 + bx + c = 0$

- ✓ The Quadratic Formula is most helpful to solve for x when the equation will not factor.

1. $2x^2 - x - 6 = 0$	$b^2 - 4ac$
 $x = \underline{\hspace{2cm}}$	$[2a]$

$b^2 - 4ac$	$2a$
$-2 \pm \sqrt{13}$	$x =$ _____

3. $x^2 + 3x - 5 = 0$	$b^2 - 4ac$
$\frac{-3 \pm \sqrt{29}}{2}$	$2a$

$b^2 - 4ac$	$2a$
$x^2 - 10x + 25 = 0$	$x = \underline{\hspace{2cm}}$

3. $6x^2 + 6x + 5 = 0$	$b^2 - 4ac$
$x =$ _____	$2a$

$4. \ 5x^2 - 2x - 2 = 0$	$b^2 - 4ac$
$x =$ _____	$2a$

Pg 8 #2: $x^2 + 4x - 9 = 0$

$$A=1 \quad B=4 \quad C=-9$$

$$\frac{-4 \pm \sqrt{52}}{2}$$

$$\begin{array}{r} 2\sqrt{13} \\ \hline 2|26 \\ \hline 13 \end{array}$$

$$\frac{-4 \pm 2\sqrt{13}}{2} = \boxed{-2 \pm \sqrt{13}}$$

Pg 8 #3: $x^2 + 3x - 5 = 0$

$$A=1 \quad B=3 \quad C=-5$$

$$\frac{-3 \pm \sqrt{(3)^2 - 4(1)(-5)}}{2(1)} =$$

$$\boxed{\frac{-3 \pm \sqrt{29}}{2}}$$

Pg 8 #4: $x^2 - 10x + 25 = 0 \Rightarrow (x-5)(x-5) = 0 \quad x=5$

$$A=1 \quad B=-10 \quad C=25$$

$$\frac{10 \pm \sqrt{(-10)^2 - 4(1)(25)}}{2} = \frac{10 \pm \sqrt{0}}{2} = \frac{10}{2} = 5$$

Pg 8 #5: $6x^2 + 6x + 5 = 0$

$$A=6 \quad B=6 \quad C=5$$

$$\frac{-6 \pm \sqrt{(6)^2 - 4(6)(5)}}{2(6)} = \frac{-6 \pm \sqrt{-84}}{12}$$

$$i \sqrt{84} \quad \begin{array}{r} 2\sqrt{21} \\ \hline 2|42 \\ \hline 3\sqrt{21} \end{array}$$

$$\frac{-6 \pm 2i\sqrt{21}}{12} = \boxed{\frac{-3 \pm i\sqrt{21}}{6}}$$

$$\text{pg 8 \#6: } 5x^2 - 2x - 2 = 0$$

$$A=5 \quad B=-2 \quad C=-2$$

$$\frac{-(-2) \pm \sqrt{(-2)^2 - 4(5)(-2)}}{2(5)} = \frac{2 \pm \sqrt{44}}{10}$$

$$\begin{array}{r} \overline{11} \\ | \\ \overline{44} \\ | \\ \overline{24} \\ | \\ \overline{2} \end{array}$$

$$\frac{2 \pm 2\sqrt{11}}{10} = \frac{1 \pm \sqrt{11}}{5}$$

$$\text{Pg 9 \#1: } 4x^2 + 11x - 20 = 0$$

F

$$x^2 + 11x - 20 = 0$$

$$(x + \frac{16}{4})(x - \frac{5}{4}) = 0$$

$$(x+4)(4x-5) = 0$$

$$x = -4 \quad x = \frac{5}{4}$$

QE

$$\frac{-11 \pm \sqrt{11^2 - 4(4)(-20)}}{2(4)}$$

$$\frac{-11 \pm \sqrt{441}}{8}$$

$$\frac{-11 \pm 21}{8}$$

$\frac{5}{4}$
 -4