

★ Review: Solving Linear Equations

$$\begin{array}{r} 5x - 2 = 13 \\ +2 \quad +2 \\ \hline 5x = 15 \\ \frac{\quad}{5} \quad \frac{\quad}{5} \\ x = 3 \end{array}$$

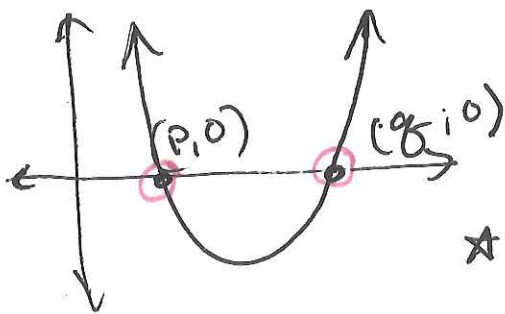
Solving Quadratic Equations

$$x^2 - 5x + 6 = 0 \quad 4n^2 = 12n - 8$$

- Solving for x when function = 0

↻ solve for x-int.

$$y = x^2 - 5x + 6$$



★ Solve by Graphing (EST)

★ solve by factoring

- make sure there is =

• Equation = 0

Ex solve $x^2 - 5x + 6 = 0$

$$\begin{array}{r} -5 \\ -2 \quad -3 \\ \hline 6 \end{array}$$

$$(x-2)(x-3) = 0$$

$= 0$ or $= 0$

$$\begin{array}{r} x-2=0 \quad \text{or} \quad x-3=0 \\ +2 \quad +2 \quad \quad +3 \quad +3 \end{array}$$

$$\boxed{x=2 \quad \text{or} \quad x=3}$$

$$\{2, 3\}$$

★ solve for x

~~1. GCF~~

~~2. Diff of 2sg~~

2 terms: $x^2 - 25$

3. $ax^2 + bx + c$

$$a = 1$$

Magic x

Ex Solve for n

$$4n^2 = 12n - 8$$

$$-12n + 8$$

$$4n^2 - 12n + 8 = 0$$

$$4(n^2 - 3n + 2) = 0$$

a=1 Magic X

$$\begin{array}{r} -3 \\ -2 \quad -1 \\ \hline 2 \end{array}$$

$$4(n-2)(n-1) = 0$$

$$\begin{array}{c} \swarrow \quad \searrow \\ =0 \quad \quad =0 \end{array}$$

$$\begin{array}{cc} n-2=0 & \text{or} & n-1=0 \\ \uparrow \quad \uparrow & & \uparrow \quad \uparrow \\ +2 & & +1 \quad +1 \end{array}$$

$$\boxed{n=2 \quad \text{or} \quad n=1}$$

* leave leading coefficients

$$ax^2 + bx + c$$

$$4n^2 + 8 - 12n$$

Rewrite to look like $ax^2 + bx + c$

Ex
Solve

$$2m^2 = 98$$

$$-98 \quad -98$$

$$2m^2 - 98 = 0$$

$$2(m^2 - 49) = 0$$

$$2(m+7)(m-7) = 0$$

$$m+7=0 \quad \text{or} \quad m-7=0$$

$$\boxed{m = -7 \quad \text{or} \quad +7}$$

OR

m^2 is easy to isolate
↳ there is no "bx"

$$\frac{2m^2}{2} = \frac{98}{2}$$

$$\sqrt{m^2} = \sqrt{49}$$

$$m = \sqrt{49}$$

$$= \boxed{\begin{array}{c} +7 \\ -7 \end{array}}$$

same answer.