



Wednesday, May 15, 2019

Warm-up

NONE

Questions...

Objective: I will review content to be prepared for the final exam.

Vertex: ① find x-intercepts

$$(x-2)(x+4)$$

$$x-2=0 \quad x+4=0$$

$$x_1=2 \quad x_2=-4$$

$$\frac{2+(-4)}{2} = -\frac{2}{2}$$

$$x_v = -1$$

$$(-1-2)(-1+4)$$

$$-3 \cdot 3$$

$$y_v = -9$$

$$(-1, -9)$$

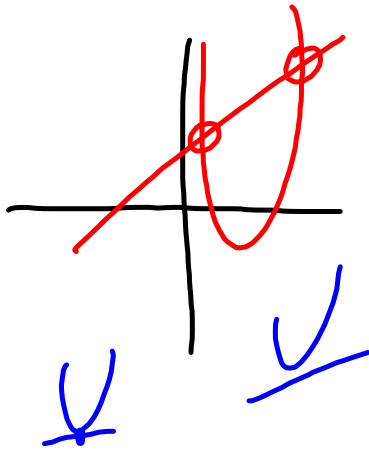
factor
set each factor = 0

② $\frac{x_1 + x_2}{2}$ (find middle x)
 x_v

③ substitute x_v into the equation to find y_v

(x_v, y_v)

$$\begin{cases} y = x - 2 \\ y = x^2 + 2x - 3 \end{cases}$$



$$x - 2 = x^2 + 2x - 3$$

$$0 = x^2 + x - 1$$

$$a = 1$$

$$b = 1$$

$$c = -1$$

Solve ...

x_1 x_2

Substitute both solutions
to get 2 points

$$\begin{cases} (3x + 4y = 10) \cdot 2 \\ 6x + 8y = A \end{cases}$$

linear

1 solution
 0 solutions
 infinite solutions

$$\begin{array}{r} \cancel{-6x} - \cancel{8y} = 20 \\ \cancel{6x} + \cancel{8y} = A \\ \hline \end{array}$$

$$0 \quad 0 =$$

$$0 = ?$$

infinite solutions $\rightarrow 0=0$
 (always true) $A=20$

no solutions
 never true $A = \text{not } 20$
 anything else

Radian to Degree

Degree to Radian

Radian π

$$\frac{5\pi}{3} \cdot \frac{60}{180} = 300^\circ$$

$$\pi = 180^\circ$$

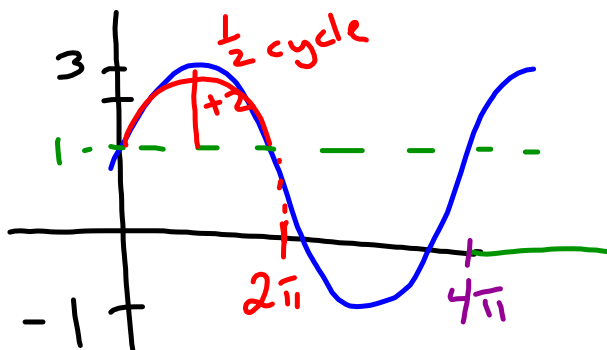
$$\frac{\pi}{180} = \frac{180}{\pi} = 1$$

$$150^\circ \cdot \frac{\pi}{180} =$$

$$\frac{150\pi}{180} \div 30$$

$$\frac{5\pi}{6}$$

to cancel
 π to get π



① midline

what type do wave

Sine

cosine

Period - how long
it takes for 1 cycle
 4π

② Amplitude = 2
height from midline

Frequency - number of cycles in 2π $\frac{1}{2}$ $y = 2\sin(\frac{1}{2}x) + 1$