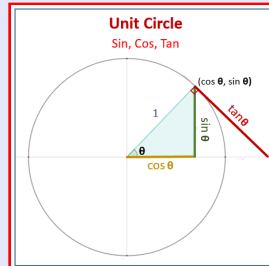


Trigonometry Lecture 1



Feb 19-8:47 AM

Rahim Faradineh

ELAC → 1990

MATH 241S M-Th 10:25-11:45

All Materials are available in my

website www.mymathclasses.com

Make a visit, explore, view the Syllabus,

do the last page and Submit in Canvas.

Office hrs MW 5:00-7:00 PM

TTh 12:30-2:00 PM

↳ Virtual (Zoom)

All Communications must be done via

Canvas or in-person.

Aug 26-10:36 AM

Some algebra review:

1) Given $a=3$, $b=-5$, $c=2$

1) Evaluate $\underline{b^2 - 4ac} = (-5)^2 - 4(3)(2) = 25 - 24 = \boxed{1}$

Discriminant (Quadratic Eqn)
 $ax^2 + bx + c = 0$

2) Find $\sqrt{b^2 - 4ac}$ 1) 1

$$= \sqrt{1} = \boxed{1}$$

2) 1

Aug 26-10:43 AM

3) Plot $A(0,3)$ & $B(4,0)$, Draw the line

\overrightarrow{AB} , find its eqn.

$$y = mx + b$$

Slope-Int. Form

Y-Int $(0, b)$
 $m = \frac{3}{4}$

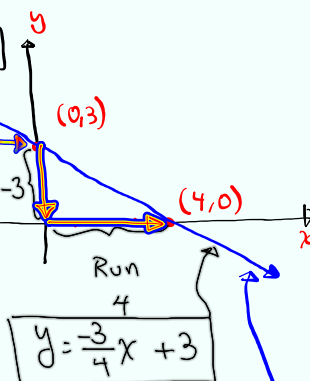
$$m = \frac{\text{Rise}}{\text{Run}}$$

$$y = \frac{-3}{4}x + 3$$

Multiply by 4

write in

$$Ax + By = C$$



$$4y = -3x + 12$$

$$3x + 4y = 12$$

Standard Form

Aug 26-10:48 AM

Simplify

$$1) 3(2x-4) - 6x + 12$$

$$= \cancel{6x} - \cancel{12} - \cancel{6x} + \cancel{12} = \boxed{0}$$

Do not use
 \emptyset for Zero.

$$2) (2x-5)(2x+5)$$

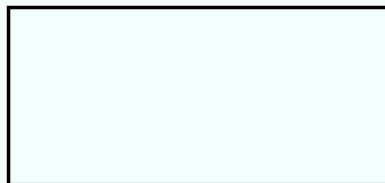
FOIL

$$= (2x)(2x) + 2x(5) - 5(2x) - 5(5)$$

$$= 4x^2 + \cancel{10x} - \cancel{10x} - 25$$

$$= \boxed{4x^2 - 25}$$

Aug 26-10:57 AM

Find area $\hat{=}$ perimeter of the rectanglebelow: $\hookrightarrow A = LW$ $\hookrightarrow P = 2L + 2W$ 

$$3x + 4$$

$$A = LW$$

$$2x-5 = (3x+4)(2x-5)$$

$$= 6x^2 - 15x + 8x - 20$$

$$= \boxed{6x^2 - 7x - 20}$$

$$P = 2L + 2W$$

$$= 2(3x+4) + 2(2x-5) = \underline{6x} + \underline{8} + \underline{4x} - \underline{10}$$

$$= \boxed{10x - 2}$$

Aug 26-11:01 AM

Simplify

$$1) x^5 \cdot x^2 = x^{5+2} = \boxed{x^7} \quad x^m \cdot x^n = x^{m+n}$$

$$2) \frac{x^5}{x^2} = x^{5-2} = \boxed{x^3} \quad \frac{x^m}{x^n} = x^{m-n}$$

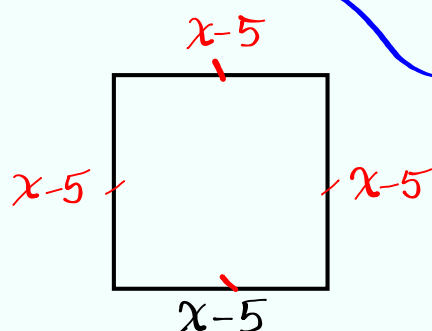
$$3) (x^5)^2 = x^{5 \cdot 2} = \boxed{x^{10}} \quad (x^m)^n = x^{m \cdot n}$$

$$4) (x^2 y^3)^4 = (x^2)^4 (y^3)^4 = \boxed{x^8 y^{12}} \quad (xy)^n = x^n y^n$$

$$5) \left(\frac{2x}{y^2}\right)^5 = \frac{2^5 x^5}{(y^2)^5} = \frac{32x^5}{y^{10}} \quad \left(\frac{x}{y}\right)^n = \frac{x^n}{y^n}$$

Aug 26-11:06 AM

Find area & perimeter of the square below.



$$P = 4S$$

$$= 4(x-5)$$

$$= \boxed{4x - 20}$$

$$\rightarrow A = S^2 \quad \rightarrow P = 4S$$

$$A = (x-5)^2$$

$$= (x-5)(x-5)$$

$$= x^2 - 5x - 5x + 25$$

$$= \boxed{x^2 - 10x + 25}$$

Aug 26-11:13 AM

Solve $3(2x - 1) = 3x - 3$

↓

Soln Set $\{0\}$

$6x - 3 = 3x - 3$

$6x - 3x = -3 + 3$

$3x = 0$

$x = \frac{0}{3}$

$x = 0$

Do not use \emptyset for 0.

Aug 26-11:18 AM

Solve and graph

$2x - 8 \leq 4x + 6$

$2x - 4x \leq 6 + 8$

$-2x \leq 14$

Divide by -2

$x \geq -7$

Interval Notation $\rightarrow [-7, \infty)$

Aug 26-11:22 AM