

# MATH 2 CHAPTER 4 PRACTICE QUIZ #7 Answer Key

1. Without graphing, find the x- and y-intercept of

(a)  $y = \frac{1}{4}x - 8$   
 \* x-intercept is where the graph crosses the x axis. The value of y is 0.

x int  $y=0$   
 $0 = \frac{1}{4}x - 8$   
 $+8$   
 $\frac{4}{1} \cdot 8 = \frac{1}{4}x \cdot \frac{4}{1}$   
 $32 = x$  (32, 0) (0, -8)

x-intercept (32, 0)

y-intercept (0, -8)

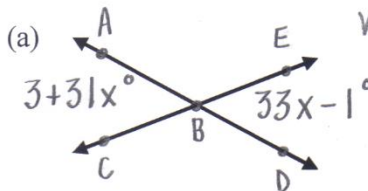
(b)  $y = \frac{3}{5}x - 9$   
 \* y-intercept is where the graph crosses the y axis, the value of x is 0.

$0 = \frac{3}{5}x - 9$   
 $+9$   
 $\frac{5}{3} \cdot 9 = \frac{3}{5}x \cdot \frac{5}{3}$   
 $15 = x$  (15, 0) (0, -9)

x-intercept (15, 0)

y-intercept (0, -9)

2. Find the value of x and the  $m\angle ABC$ .



vertical angles are =

$$\begin{array}{r} 3+31x = 33x-1 \\ -31x \quad -31x \\ \hline 3 = 2x-1 \end{array}$$

$$\begin{array}{r} 3 = 2x-1 \\ +1 \quad +1 \\ \hline 4 = 2x \end{array}$$

$$4 = 2x$$

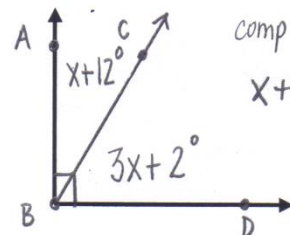
$$2 = x$$

x = 2

$m\angle ABC =$  65

$3+31(2)$   
 $3+62=65$   
 $33(2)-1$   
 $66-1=65$  ✓

(b)



comp  $\angle$ s add up to  $90^\circ$

$$x+12+3x+2=90$$

$$4x+14=90$$

$$4x = 76$$

$$\frac{4x}{4} = \frac{76}{4}$$

19+12=31 x=19

x = 19

$m\angle ABC =$  31

$3(19)+2=57+2=59$   
 $59+31=90$  ✓

3. What is the complement and supplement of  $62^\circ$ ?

comp add up to  $90^\circ$   
 supp add up to 180

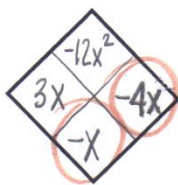
90-62=28

180-62=118

Complement 28  
 Supplement 118

4. Solve the diamond problems.

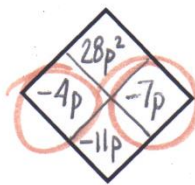
(a)



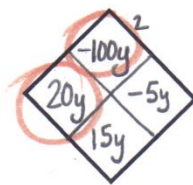
(b)



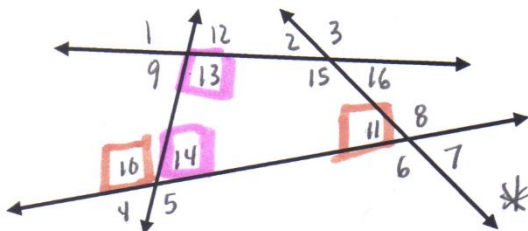
(c)



(d)



5. Name the angle pair relationship between each pair of angles.



(a)  $\angle 10$  and  $\angle 11$

corresponding angles

(b)  $\angle 13$  and  $\angle 14$

same-side interior

\* Vertical angles, complementary angles, same-side interior angles, corresponding angles, alternate-interior angles, supplementary angles, linear pair.