MIDTERM 2017 REVIEW SHEET – SHORT ANSWER PRACTICE **ALL WORK MUST BE SHOWN TO RECEIVE CREDIT**

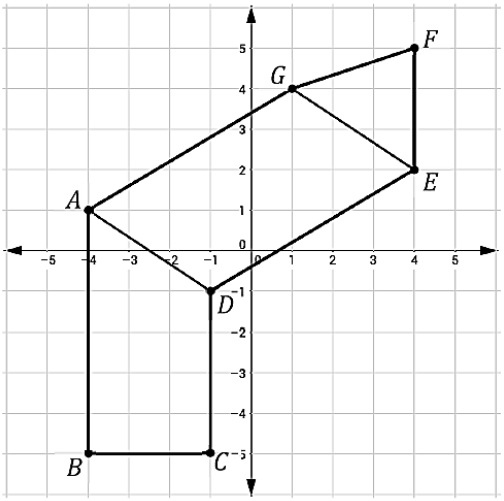
Name: _____ Date: _____ Pd. _____

Partitioning:

_____**1A)** Points A, P and B are collinear on $\overline{AB}$, and AP:AB = 2/7. A is located at the origin, B is located at (7,-14) and P is located at (x,y).

_____**1B)** Point D is collinear with points A and K on $\overline{AK}$. A is at (7, 2) and K is at (2, -10). Point D partitions AK in a ratio of 5:1. Find the location of D.

2. Consider the following diagram. Which of the following statements are true? Select all that apply?



a) ___ The midpoint of AG is (-1.5, 2.5)

b) ___ DE is exactly 5 units

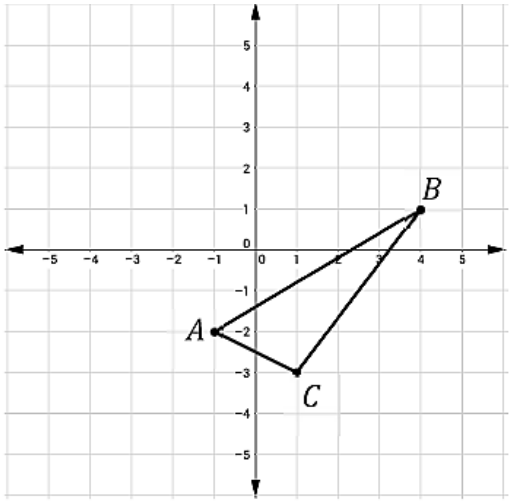
c) ___ AD is exactly 3 units

d) ___ FG is longer than EF

e) ___ The perimeter of quadrilateral ABCD is about 16.6 units

f) ___ The perimeter of quadrilateral ADEG is about 18.8 units

g) ___ The perimeter of triangle EFG is 9 units



USE THE DIAGRAM TO THE LEFT FOR QUESTIONS 3 – 7

Distance and Perimeter:

3. Consider ΔABC below. Find the perimeter of ΔABC.

Hint: find the length of AB, BC, and AC separately then add them all together to find the perimeter.

Transformations: Perform each of the transformations on the original object. Write the coordinates of the image.

4. Translate the figure according the rule

(x,y) → (x – 3, y + 2) and write the coordinates.

A'(,) B'(,) C'(,)

5. Reflect the figure across the line y = x.

A'(,) B'(,) C'(,)

6. Reflect the figure across the x-axis.

A'(,) B'(,) C'(,)

7. Rotate the figure 180° counterclockwise.

A'(,) B'(,) C'(,)

Similar Polygons:

The polygons in 8A & 8B are similar. Solve for x. (Hint: Use Proportions)

8A)

x =

8B)

Ratio of Left to Right Polygon is 3:4

x =

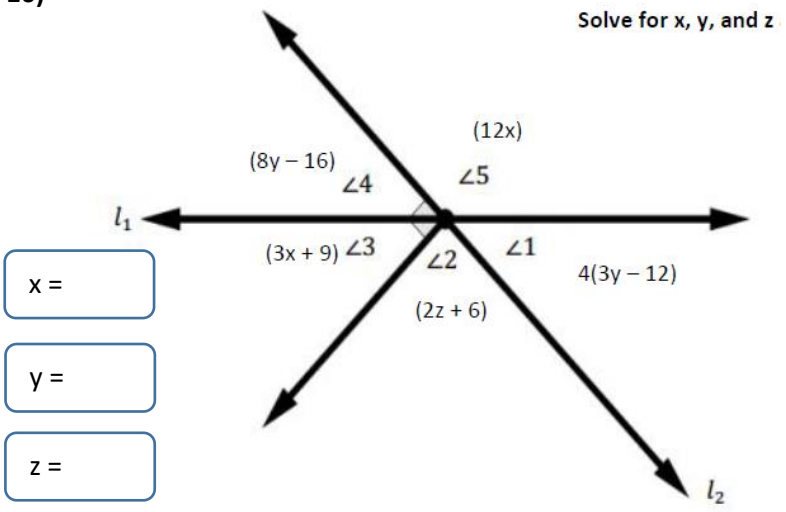
9. Parallel and Perpendicular Lines

Match the equation on the left to the line description on the right.

A.) $y = 13$	**1.** A line perpendicular to $-3x + 2y = 8$
B.) $y = -\frac{2}{3}x - \frac{2}{3}$	**2.** A line parallel to $2y - x = 2$
C.) $4x - 7y = 56$	**3.** A line perpendicular to $x = -13$
D.) $2x - 4y = -10$	**4.** A line parallel to $16x = 28y$

Special Angle Pairs

10)

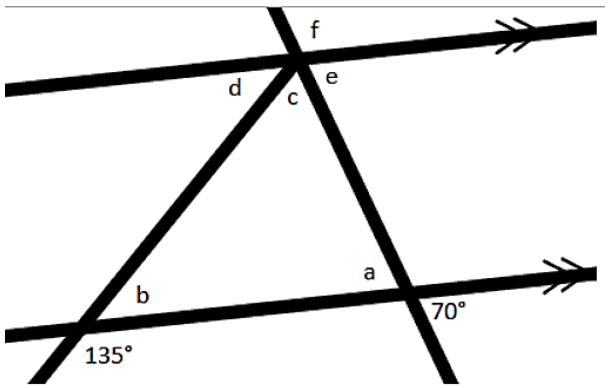


x =

y =

z =

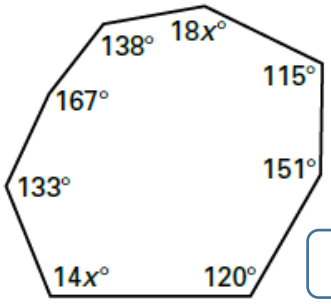
11) Hint: Look for the Z's …



Angles of a Polygon:

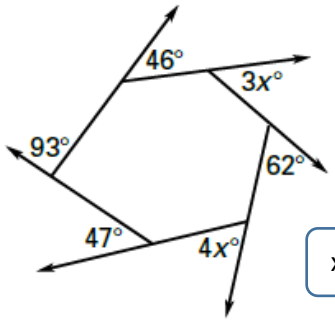
a) Find the value of x.

12)



x =

b) Find the value of x.



x =

Unit 1 Formulas/Rules:
Midpoint, Distance, Partitioning, Equations of a Line, Parallel and Perpendicular Slopes
Unit 2 Formulas/Rules:
Translation Rules, Reflection Rules, Rotations Rules, Dilations Rules, Finding Scale Factor, Algebraic Description
Unit 3 Formulas/Rules:
Complementary, Supplementary, Vertical Angles, Parallel Lines cut by a Transversal Special Angle Pairs
Unit 4/5 Formulas/Rules:
Interior and Exterior Angles of a Polygon, Rotational Symmetry, Similarity Proportions, Scale Factor