

This quiz is worth 80 points. You must show all necessary work for credit.
 Figures are not necessarily drawn to scale.

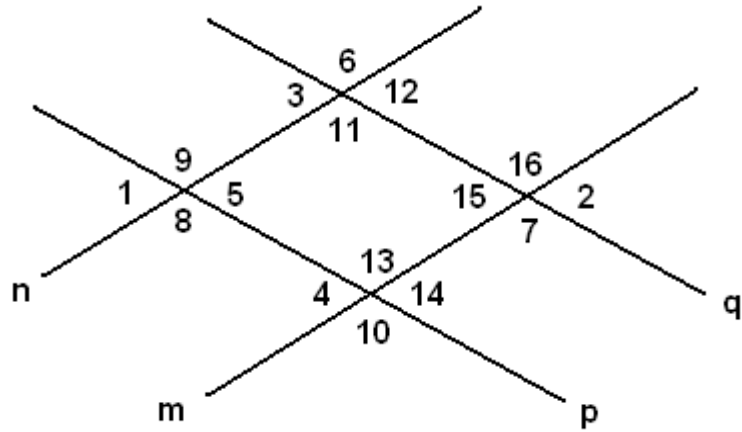
- 1.) In the figure provided, list **all pairs** of each type of angles: [4 Points]
 (USING " q " as the transversal)

(A) Alternate Exterior Angles

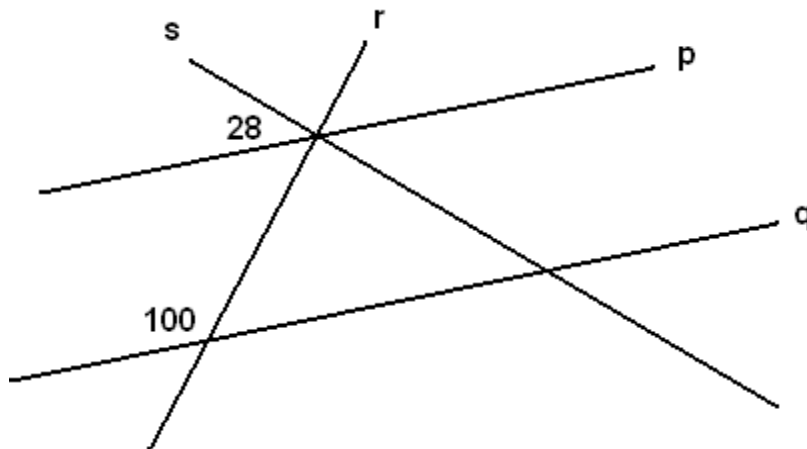
(B) Alternate Interior Angles

(C) Same-Side Interior Angles

(D) Corresponding Angles



- 2.) Find the values of the missing angle measures in the figure. [4 Points]
 (Just write the angle measures on the figure.. **don't worry about explanation or work.**)



Given: $p \parallel q$

In Problems 3 – 7, solve for what is requested. You must have a method. Guess and check does not suffice.

3.) What is the sum of the measures of the interior angles in a 78-gon? [5 Points]

4.) What is the sum of the measures of the exterior angles of a 198-gon? [5 Points]

5.) Each interior angle in a regular polygon measures 179.82 degrees. How many sides does this polygon have? [5 Points]

6.) The sum of the measures of the interior angles of a polygon is 25,560 degrees. How many sides does this polygon have? [5 Points]

7.) Find the measure of each interior angle of a regular 64-gon. [5 Points]

11.) Solve for x and y . Then, determine which lines are parallel (if any).

[15 Points]

	L1		L2	
L4	1	2	6	8
	4	3	9	12
L3	5	7	13	15
	10	11	16	14

$$x = \underline{\hspace{2cm}}$$

$$y = \underline{\hspace{2cm}}$$

Which lines (if any) are parallel?

(Justify your answer as we did in class.)

Given:

$$m\angle 3 = 5x - y$$

$$m\angle 5 = 3x + 5y - 9$$

$$m\angle 6 = 7x - 5y - 8$$

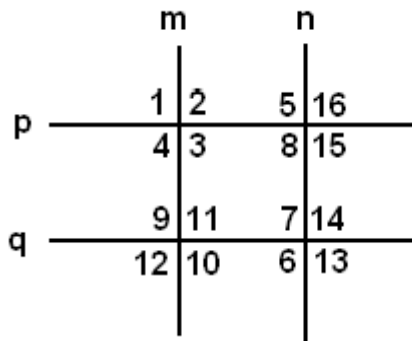
$$m\angle 7 = x + 8y + 5$$

$$m\angle 13 = 17y - x - 25$$

$$m\angle 14 = 4x + 3y - 13$$

12.) Solve for the requested information.

[10 Points]



Given:

$$\begin{aligned}m < 4 &= 8x - 19y + 6 \\m < 5 &= 19x - 22y - 22 \\m < 7 &= 40x + 5y + 16 \\m < 10 &= 17x - 11y + 20 \\m &\parallel n\end{aligned}$$

Find:

$$x = \underline{\hspace{2cm}}$$

$$y = \underline{\hspace{2cm}}$$

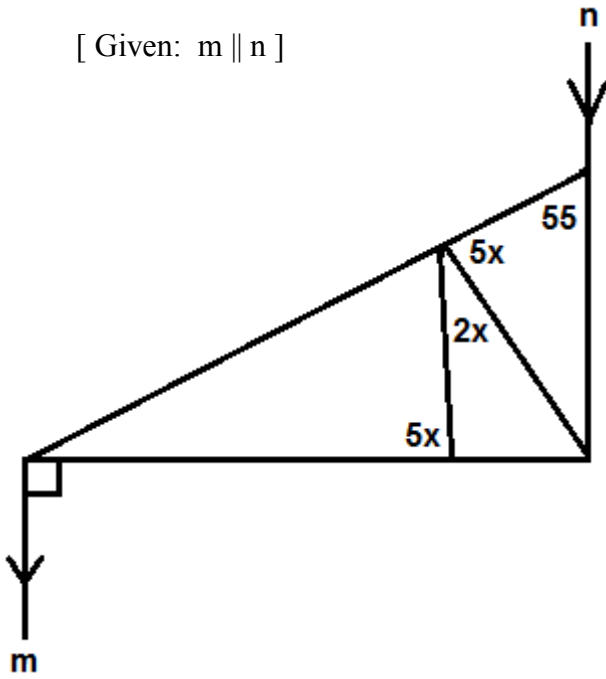
$$m < 9 = \underline{\hspace{2cm}}$$

Bonus.

Solve for x . Justify your work completely!

[3 Points]

[Given: $m \parallel n$]



$x =$ _____