

CP Geometry:
More work with Transversals

Name: _____

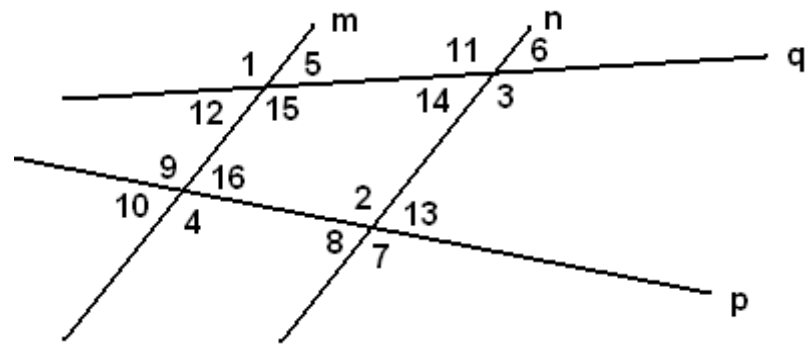
1.) Given the figure, list off all pairs of each of the following angles **using p as the transversal**.

Corresponding Angles:

Alternate Interior Angles:

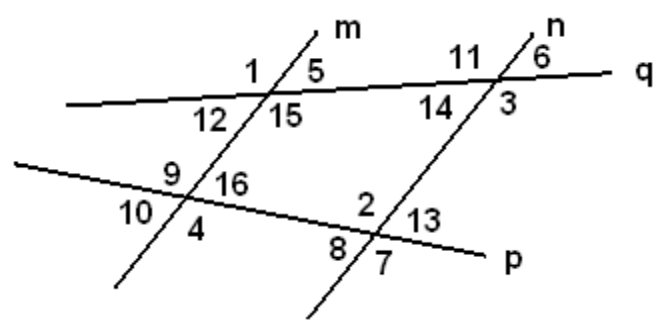
Same-Side Interior Angles:

Alternate Exterior Angles:



2.) Provide a two-column proof of your own for the converse of the same-side interior angles theorem. (On a separate sheet of paper, please!)

3.)



Given:

$m \parallel n$

- $m \angle 12 = 3x + 4y + 75$
- $m \angle 4 = 5x - 14y + 79$
- $m \angle 2 = 3y - 40x + 57$
- $m \angle 6 = 2x - 17y - 11$

Find: $x =$
 $y =$

$m \angle 8 =$
 $m \angle 14 =$

4.) Find the value of the requested items in the figure: (SHOW WORK)

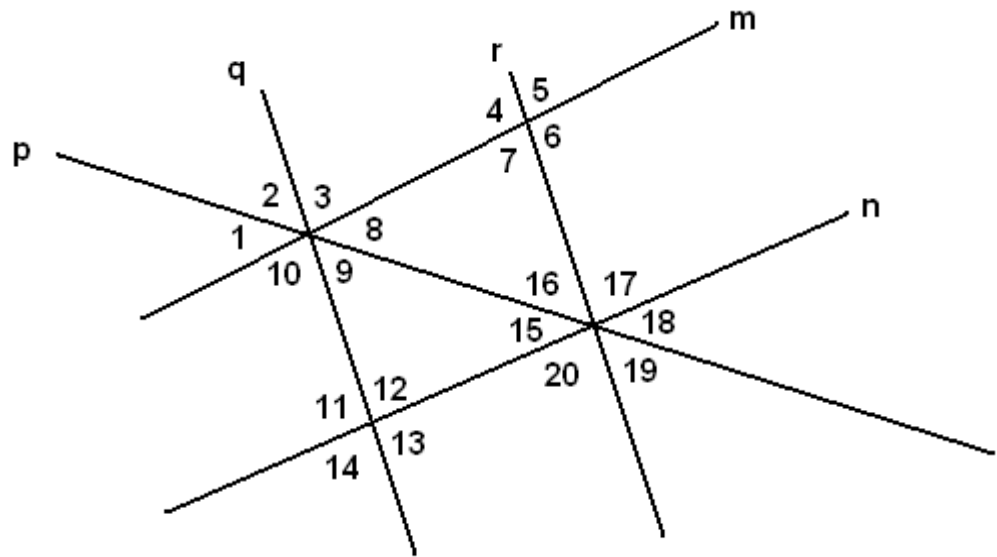
Given:

$$\begin{aligned} m\angle 9 &= 44 \\ m\angle 8 &= 52 \\ m\angle 12 &= 84 \end{aligned}$$

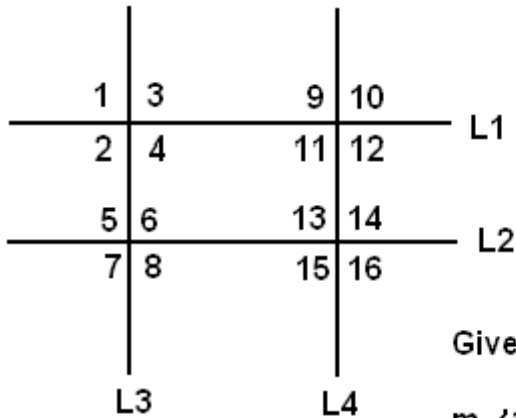
$$q \parallel r$$

Find (if possible):

$$\begin{aligned} m\angle 7 &= \\ m\angle 13 &= \\ m\angle 20 &= \end{aligned}$$



5.)



Given:

$$\begin{aligned} m\angle 13 &= 12x + 16y + 10 \\ m\angle 6 &= 5x + 11y + 17 \\ m\angle 16 &= x + 13y + 14 \\ m\angle 10 &= 5x + 5y + 67 \\ m\angle 3 &= 20x + 8y + 109 \\ m\angle 4 &= 8y - 2x + 16 \end{aligned}$$

Find:

$$\begin{aligned} x &= \\ y &= \end{aligned}$$

Which lines are parallel?
(if any)