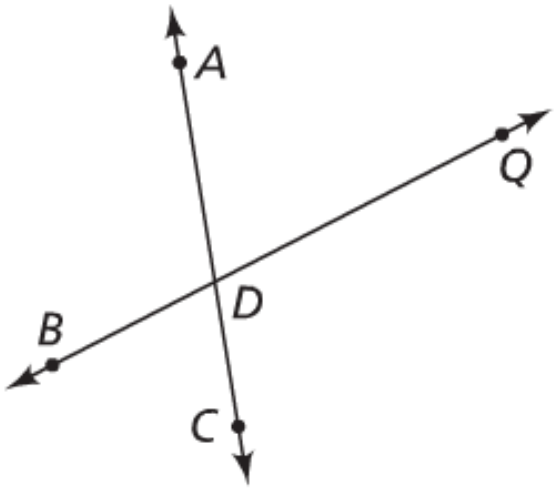
Lesson 2.05 – "On Your Own" Worksheet **Name: _____**

6.) Use the figure at right. Find the measures of $\angle BDA$, $\angle ADQ$, and $\angle CDQ$ for the following conditions.



a.) If $m\angle BDC = 62°$, then:

$m\angle BDA =$ _____

$m\angle ADQ =$ _____

$m\angle CDQ =$ _____

b.) If $m\angle BDC = 72°$, then:

$m\angle BDA =$ _____

$m\angle ADQ =$ _____

$m\angle CDQ =$ _____

c.) If $m\angle BDC = 55°$, then:

$m\angle BDA =$ _____

$m\angle ADQ =$ _____

$m\angle CDQ =$ _____

d.) If $m\angle BDC = x°$, then:

$m\angle BDA =$ _____

$m\angle ADQ =$ _____

$m\angle CDQ =$ _____

Use a straight edge to draw line ℓ. Draw a point *P* not on line ℓ.

7.) How many lines could you draw that are parallel to line *l* that pass through point *P*? *Explain* how you know.

8.) How many lines could you draw that are perpendicular to line *l* that pass through point *P*? *Explain* how you know.

9a.) Use your straightedge to draw a line through point *P* that is perpendicualr to line *l*. Label the new line as line *n*.

9b.) Use your straightedge to draw a line through point *P* that is perpendicular to line *n*. Label the new line as line *m*.

9c.) Where will line *l* and line *m* intersect? *Explain* your answer.