Geometry Note-Taking Guide **Name:**_____

Period:____

Section 3.2 – More Parallel Lines and Transversal Problems

Ex 1:

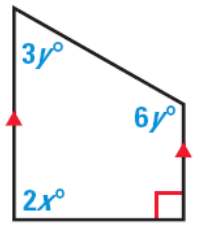
a) $\angle 1$ and $\angle 2$ are Alternate Interior angles. If $m\angle 1 = 2x$ and $m\angle 2 = 30 + x$, find the the value of x.

b) $\angle 6$ and $\angle 7$ are consecutive interior angles. If $m\angle 6 = 3x - 12$ and $m\angle 7 = 5x + 32$, find the measure of the smaller angle.

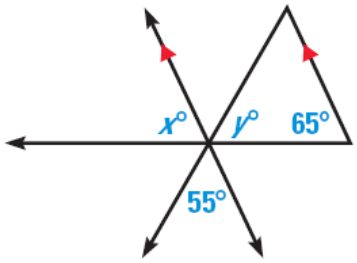
Ex 2:

Find the value of the variables.

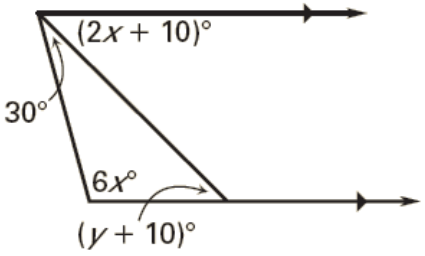
a)



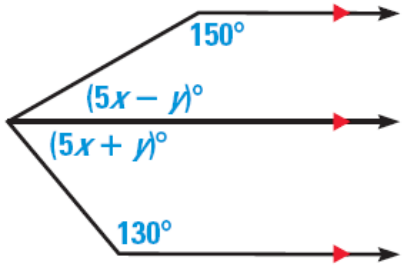
b)



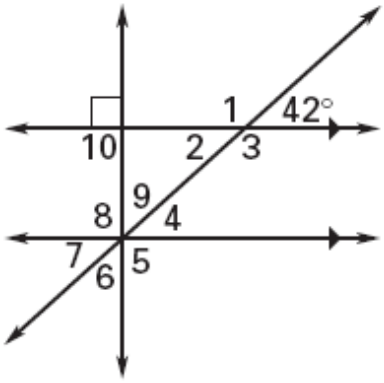
c)



d)

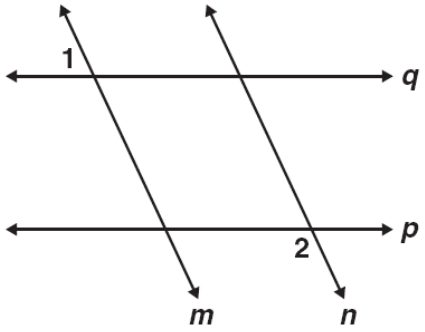


Ex 3:
Find the measure of the numbered angles.



Ex 4:

a) Given: p || q;
m || n;
m∠1 = 75°



What is m∠2?

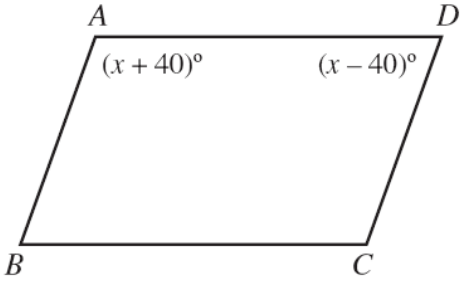
A 15°

B 75°

C 90°

D 105°

b) In the figure below, $\overline{AB} \parallel \overline{CD}$.



What is the value of x?

A 40

B 50

C 80

D 90