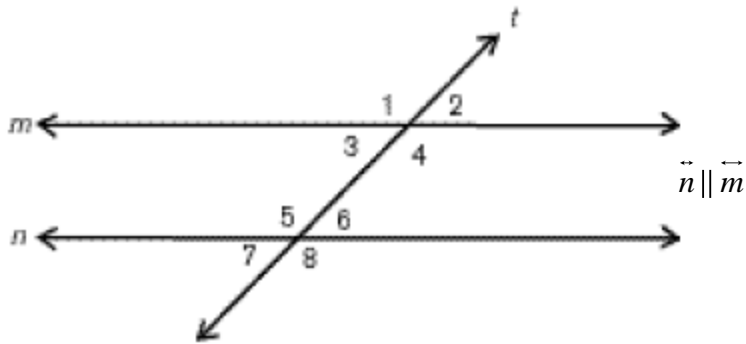


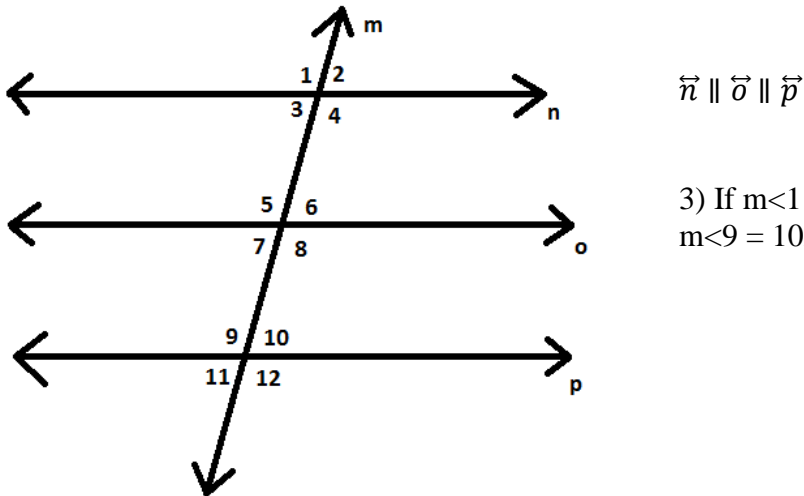
Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Class: \_\_\_\_\_

Geometry  
 Unit 2  
 HW 2-1



1) Using the diagram above if  $m\angle 1 = 12x + 38$  and  $m\angle 3 = 12x - 2$  find and explain  $m\angle 6$

2) Using the diagram above if  $m\angle 4 = 6x + 2$  and  $m\angle 8 = 8x - 20$  find and explain  $m\angle 2$



3) If  $m\angle 1 = 8x + 10$  and  $m\angle 9 = 10x + 15$ , find  $m\angle 5$

4) If the endpoints of segment BT are  $(-4, 5)$  and  $(1, 3)$  find the equation of the perpendicular bisector of this segment.

5)  $\angle VFR$  has  $\overline{FH}$  splitting it into two parts.  $m\angle VFR = 16x - 4$ ,  $m\angle VFH = 8x - 9$ , and  $m\angle HFR = 7x + 11$ . Find  $m\angle VFR$ .

6) Segment TU has midpoint P. If  $TP = 2x + 2$  and  $UP = 4x - 13$ . Find and explain TU.

7) Segment RO has endpoints (1, 1) and (x, 4). This segment is perpendicular to the line  $4x - 3y = 7$ . What is the value of x?