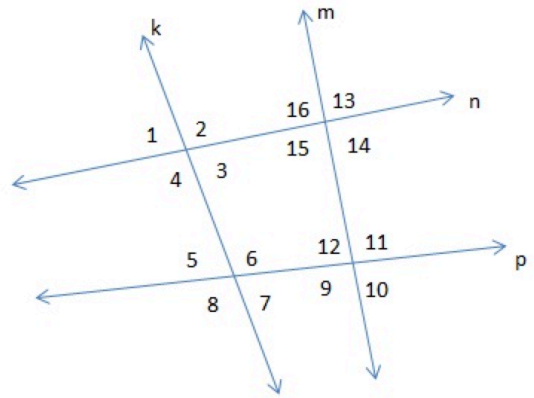


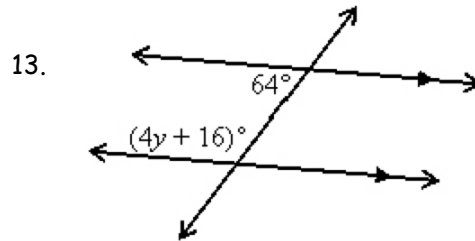
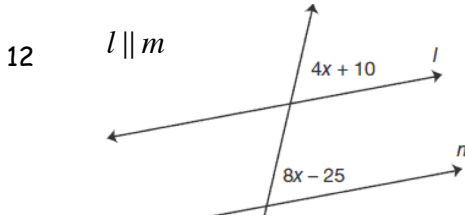
**Chapter 3- Parallel and Perpendicular Lines**

**#1-11, Use the diagram at right where  $n \parallel p$ . If the angles listed have a relationship, name it.**

1.  $\angle 1$  and  $\angle 5$
2.  $\angle 12$  and  $\angle 7$
3.  $\angle 14$  and  $\angle 16$
4.  $\angle 9$  and  $\angle 13$
5.  $\angle 12$  and  $\angle 3$
6.  $\angle 11$  and  $\angle 10$
7.  $\angle 14$  and  $\angle 3$
8.  $\angle 4$  and  $\angle 5$
9. If  $m\angle 13 = 76^\circ$ , then  $m\angle 11 =$  \_\_\_\_\_.
10. If  $m\angle 4 = 76^\circ$ , then  $m\angle 5 =$  \_\_\_\_\_.
11. True or False? If  $m\angle 12 = 76^\circ$ , then  $m\angle 5 = 76^\circ$



**#12-13, solve for the variable.**



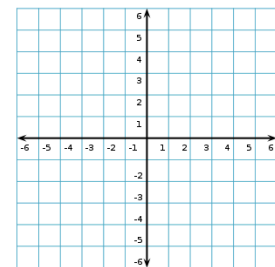
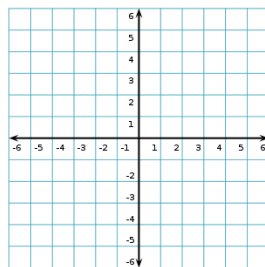
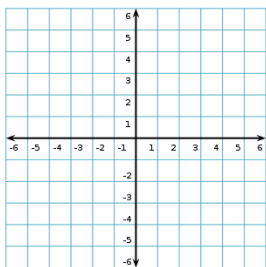
14. a. Find the slope of  $\overline{HI}$  for points  $H(11, 22)$  and  $I(-1, -70)$ .
- b. What is the slope of a line perpendicular ( $\perp$ ) to  $\overline{HI}$ ? \_\_\_\_\_ and parallel ( $\parallel$ ) to  $\overline{HI}$ ? \_\_\_\_\_
- c Write the equation of line  $\overline{HI}$  in point-slope form.

15 Graph the lines below

a.  $y = -3x$

b.  $y = 3$

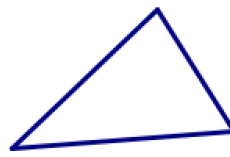
c.  $2x + 3y = -12$



16. a. Find the slope of the line between the points  $(4, 27)$  and  $(4, 30)$
- b. Describe the orientation of this line on a graph.

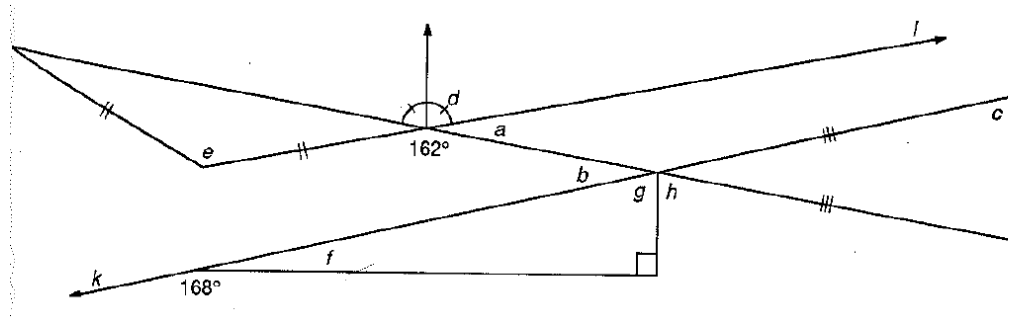
Chapter 4- Triangle Congruence

1. Mark the diagram to show the triangle is obtuse and scalene.

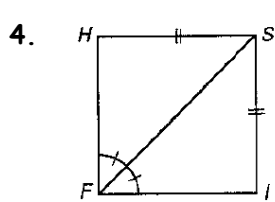
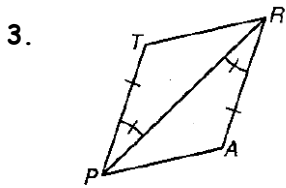


2. Determine the value of the variables listed ( $l \parallel k$ ).

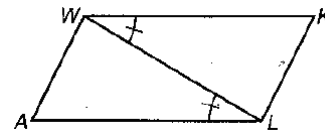
- a =
- b =
- c =
- d =
- e =
- f =



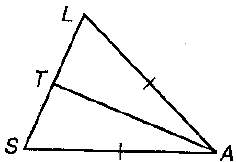
#3-8, Determine whether or not the triangles are congruent and give a reason for your answer.



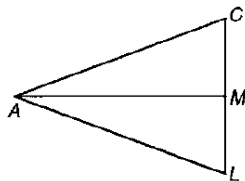
5.  $AW \perp WL$  and  $WL \perp KL$



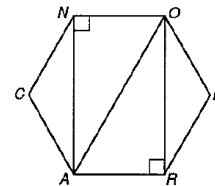
6.  $\overline{AT}$  is an angle bisector



7.  $\overline{AM}$  is a median.



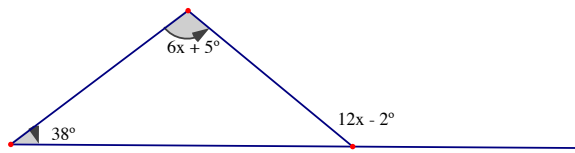
8. CARBON is a regular hexagon



9. The triangles in #5 are congruent. Write the congruence statement (i.e. name them).

10. The triangles in #3 are congruent by SAS, but would  $PA = RT$ ? Explain why or why not.

11. Solve for x in diagram at right.



12. Solve for z in diagram at right.

