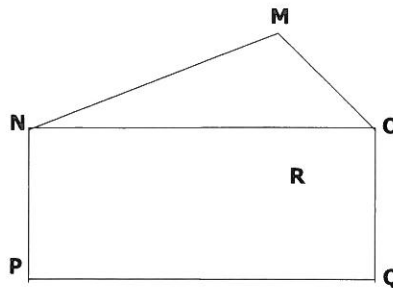


# Parallel Lines and Transversals

Name \_\_\_\_\_ Period \_\_\_\_\_

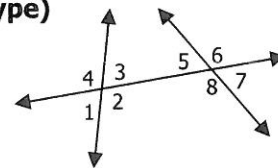
## I. Refer to the figure at right.

- 1) Name two more pairs of parallel segments.
- 2) Name two more segments skew to NM
- 3) Name two transversals for parallel lines NO and PQ
- 4) Name a segment that is parallel to plane MRQ.



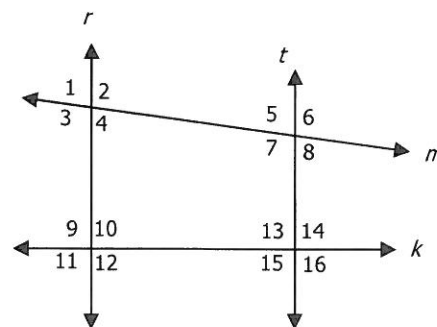
## II. Identify the angles that go with the following types. (give all angles for each type)

- |                                |                              |
|--------------------------------|------------------------------|
| 5) Corresponding angles        | 6) Alternate exterior angles |
| 7) Consecutive interior angles | 8) Alternate interior angles |



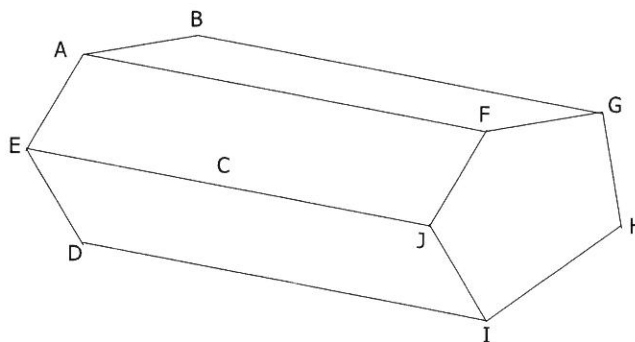
## III. Using the figure below, state the transversal that forms each pair of angles. Then identify the special name for the angle pair.

- 9)  $\angle 1$  and  $\angle 12$  transversal = \_\_\_\_\_ special name = \_\_\_\_\_
- 10)  $\angle 2$  and  $\angle 10$  transversal = \_\_\_\_\_ special name = \_\_\_\_\_
- 11)  $\angle 4$  and  $\angle 9$  transversal = \_\_\_\_\_ special name = \_\_\_\_\_
- 12)  $\angle 6$  and  $\angle 3$  transversal = \_\_\_\_\_ special name = \_\_\_\_\_
- 13)  $\angle 14$  and  $\angle 10$  transversal = \_\_\_\_\_ special name = \_\_\_\_\_
- 14)  $\angle 7$  and  $\angle 13$  transversal = \_\_\_\_\_ special name = \_\_\_\_\_



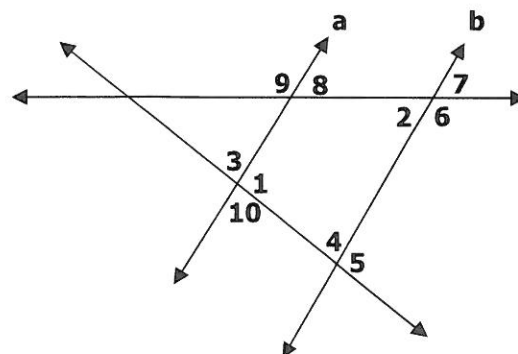
## IV. The three-dimensional figure shown below is called a right pentagonal prism.

- 15) Identify all segments in plane JIH that appear to be skew to EB.
- 16) Which segments seem parallel to BG?
- 17) Which segments seem parallel to GH?
- 18) Identify all planes that appear parallel to plane FGH.
- 19) Name four segments skew to CD.
- 20) Name four segments skew to DI.



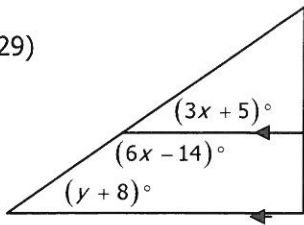
In figure below  $a \parallel b$ ,  $m\angle 1 = 78^\circ$ , and  $m\angle 2 = 47^\circ$ . Find measure of each angle.

- |                |                 |
|----------------|-----------------|
| 21) $\angle 3$ | 22) $\angle 4$  |
| 23) $\angle 5$ | 24) $\angle 6$  |
| 25) $\angle 7$ | 26) $\angle 8$  |
| 27) $\angle 9$ | 28) $\angle 10$ |

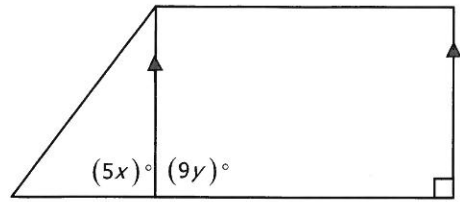


Find the missing values of  $x$  and  $y$ .

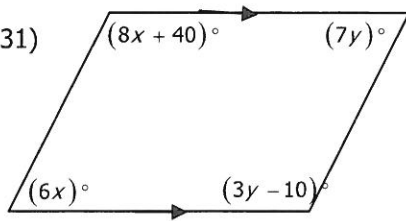
29)



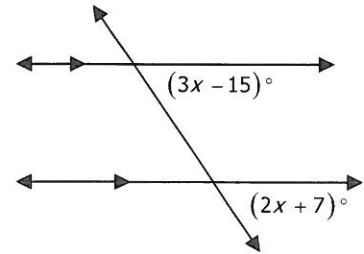
30)



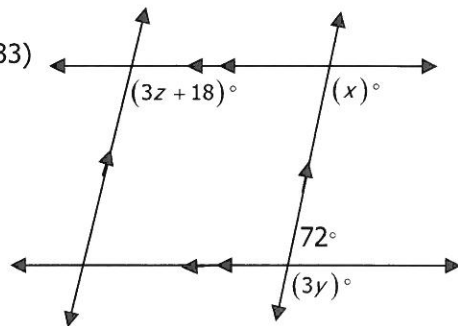
31)



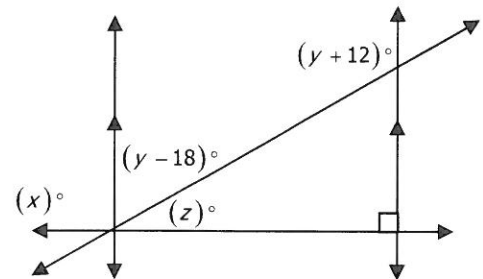
32)



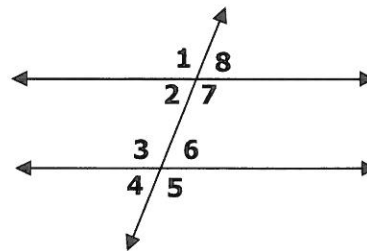
33)



34)



In the figure,  $l \parallel m$ . Find the measure of each angle. Each problem is different.



35) If  $m\angle 7 = 100^\circ$ , then  $m\angle 3 =$  \_\_\_\_\_

39) If  $m\angle 3 = 140^\circ$ , then  $m\angle 8 =$  \_\_\_\_\_

36) If  $m\angle 7 = 175^\circ$ , then  $m\angle 6 =$  \_\_\_\_\_

40) If  $m\angle 4 = 30^\circ$ , then  $m\angle 1 =$  \_\_\_\_\_

37) If  $m\angle 7 = 120^\circ$ , then  $m\angle 5 =$  \_\_\_\_\_

41) If  $m\angle 4 = 40^\circ$ , then  $m\angle 2 =$  \_\_\_\_\_

38) If  $m\angle 4 = 20^\circ$ , then  $m\angle 7 =$  \_\_\_\_\_

42) If  $m\angle 7 = 125^\circ$ , then  $m\angle 4 =$  \_\_\_\_\_