

Name: \_\_\_\_\_

Period: \_\_\_\_\_

SHOW ALL WORK FOR CREDIT!

GEOMETRY PRACTICE QUIZ #2-VERSION B ON  
COMPLEMENTARY AND SUPPLEMENTARY ANGLES,  
ADJACENT AND VERTICAL ANGLES, AND ANGLE AND LINE  
RELATIONSHIPS

PART 1- COMPLEMENTARY AND SUPPLEMENTARY ANGLES

For #'s 1 - 8, match the term with its definition.

- |                         |   |
|-------------------------|---|
| 1. Supplementary _____  | <b>A.)</b> TWO ANGLES WHOSE SUM OF MEASURES EQUALS ONE-HUNDRED EIGHTY DEGREES |
| 2. Complementary _____  | <b>B.)</b> THESE ANGLES CAN NEVER FORM SUPPLEMENTARY ANGLES                   |
| 3. Right Angle _____    | <b>C.)</b> TWO OF THESE ANGLES FORM COMPLEMENTARY ANGLES                      |
| 4. Straight Angle _____ | <b>D.)</b> AN ANGLE FORMED WITH TWO COMPLEMENTARY ANGLES                      |
| 5. Acute Angle _____    | <b>E.)</b> TWO ANGLES WHOSE SUM OF ANGLE MEASURES EQUALS NINTEY DEGREES       |
| 6. Obtuse Angles _____  | <b>F.)</b> AN ANGLE THAT IS FORMED WITH TWO SUPPLEMENTARY ANGLES              |

For #'s 7 - 15 find the complement of each angle

7.)  $5^\circ$

8.)  $67^\circ$

9.)  $54^\circ$

10.)  $25^\circ$

11.)  $110^\circ$

12.)  $73^\circ$

13.)  $79^\circ$

14.)  $12^\circ$

15.)  $89^\circ$

For #'s 15 - 24 find the supplement of each angle

15.)  $62^\circ$

16.)  $138^\circ$

17.)  $4^\circ$

18.)  $20^\circ$

19.)  $152^\circ$

20.)  $165^\circ$

21.)  $77^\circ$

22.)  $90^\circ$

23.)  $113^\circ$

Answer the questions for #'s 24 - 27

24.) Can an angle ever have the same measure as its complement?  
Explain.

25.) Can an angle ever have the same measure as its supplement?  
Explain.

25.) If the measure of  $\angle A$  is  $56^\circ$ , what is the measure of its complement?  
What is the measure of its supplement?

26.) If  $\angle A$  and  $\angle B$  are supplementary and the measure of  $\angle A$  is  $117^\circ$ ,  
what is the measure of  $\angle B$ ?

27.) If  $\angle A$  and  $\angle B$  are complementary and the measure of  $\angle B$  is  $17^\circ$ ,  
what is the measure of  $\angle A$ ?

28.) What two **different** angles can form supplementary angles.

29.) Two of what same type of angle can form supplementary angles.

## PART 2- ADJACENT AND VERTICAL ANGLES AND ANGLE AND LINE RELATIONSHIPS

For #'s 30 - 35, match the term with its definition.

30.) Congruent \_\_\_\_\_

31.) Adjacent \_\_\_\_\_

32.) Vertical \_\_\_\_\_

33.) Parallel \_\_\_\_\_

34.) Transversal \_\_\_\_\_

35.) Exterior \_\_\_\_\_

36.) Interior \_\_\_\_\_

A.) A LINE THAT INTERSECTS TWO OTHER LINES IN DIFFERENT POINTS.

B.) ANGLES THAT ARE FORMED BY TWO INTERSECTING LINES AND ARE OPPOSITE EACH OTHER.

C.) ARE ANGLES THAT LIE INSIDE PARALLEL LINES.

D.) ANGLES THAT HAVE THE SAME ANGLE MEASURE

E.) ARE ANGLES THAT LIE OUTSIDE PARALLEL LINES.

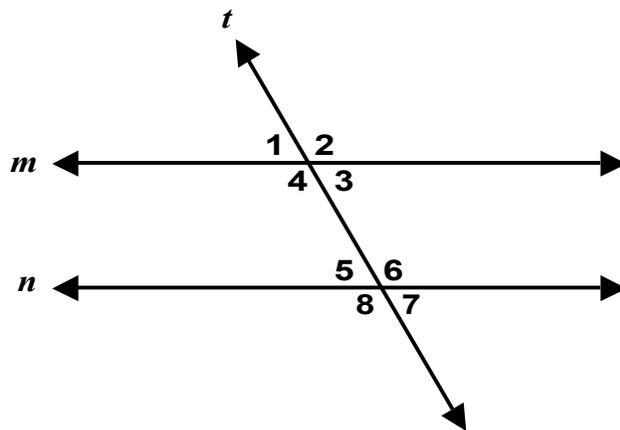
F.) ARE LINES THAT ARE THE SAME DISTANCE APART AND NEVER INTERSECT.

G.) ARE ANGLES THAT SHARE A VERTEX AND A SIDE BUT HAVE NO INTERIOR POINTS IN COMMON.

37.) What does the symbol  $\mathbb{R}$  represent?

38.) What does the symbol  $\parallel$  represent?

For #'s 39 - 43, use the figure to determine the answers to the questions.



39.) What is the 3 similarities between  $\angle 1$  and  $\angle 2$ ?

- 1.
- 2.
- 3.

40.) What is the similarity between  $\angle 1$  and  $\angle 5$ ?

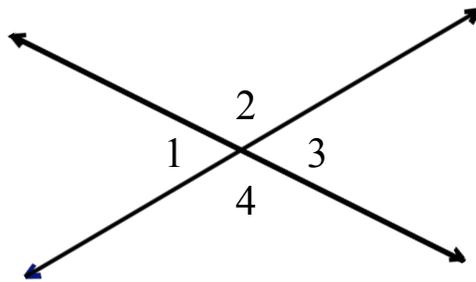
41.) What is the similarity between  $\angle 3$  and  $\angle 5$ ?

42.) What is the similarity between  $\angle 1$  and  $\angle 7$ ?

43.) What is the similarity between  $\angle 5$  and  $\angle 4$ ?

For #'s 44 - 49 , use the information before the questions

For #'s 44 – 46 use the diagram below,  $m\angle 2 = 123^\circ$ . Find the measure of each angle.

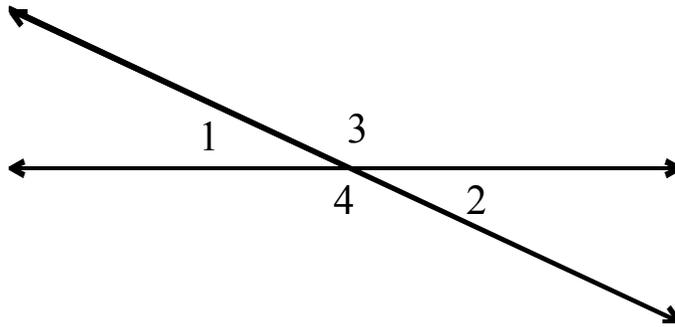


44.)  $m\angle 1$

45.)  $m\angle 3$

46.)  $m\angle 4$

For #'s 47 – 49 In the diagram below,  $m\angle 1 = 25^\circ$  Find the measure of each angle.



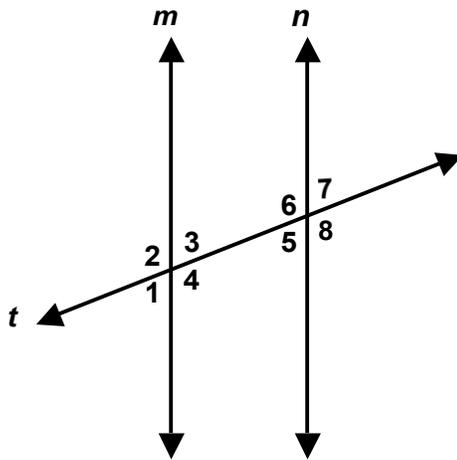
47.)  $m\angle 3$

48.)  $m\angle 2$

49.)  $m\angle 4$

For #'s 50 – 55 use the following information below:

In the figure,  $m \parallel n$  and  $t$  is a transversal. If  $m\angle 8 = 125^\circ$ , find the measure of each angle. (MUST GIVE AN EXPLANATION FOR EACH ANSWER.)



50.)  $\angle 5$

51.)  $\angle 6$

52.)  $< 2$

53.)  $< 1$

54.)  $< 4$

55.)  $< 7$

For #'s 55 - 60, answer the questions below

55.) There are always how many exterior angles?

56.) There are always how many interior angles?

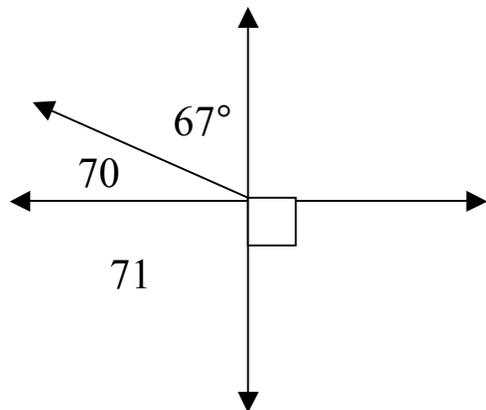
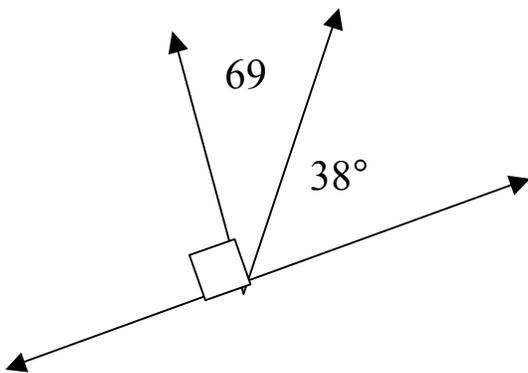
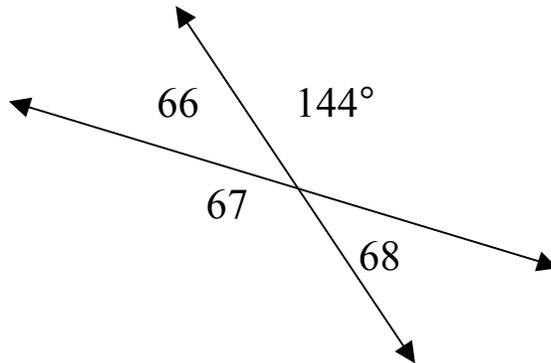
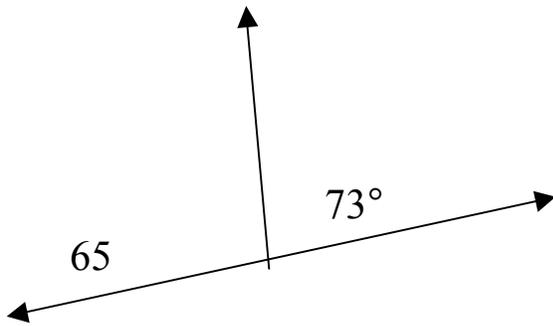
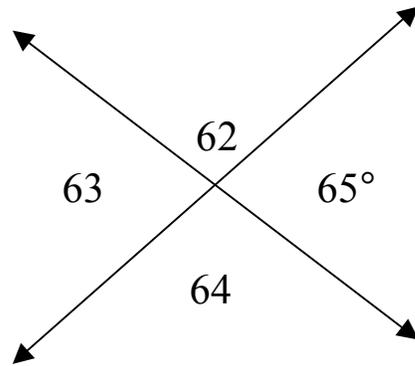
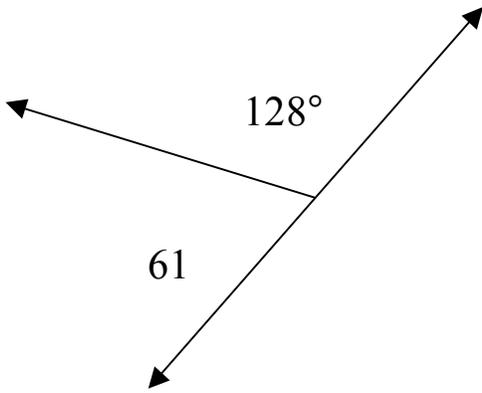
57.) There are always how many pair of alternate interior angles?

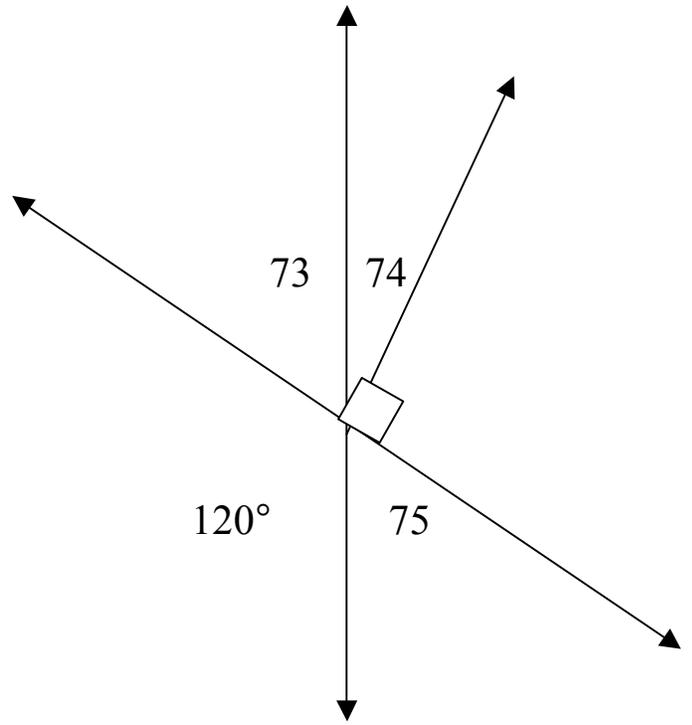
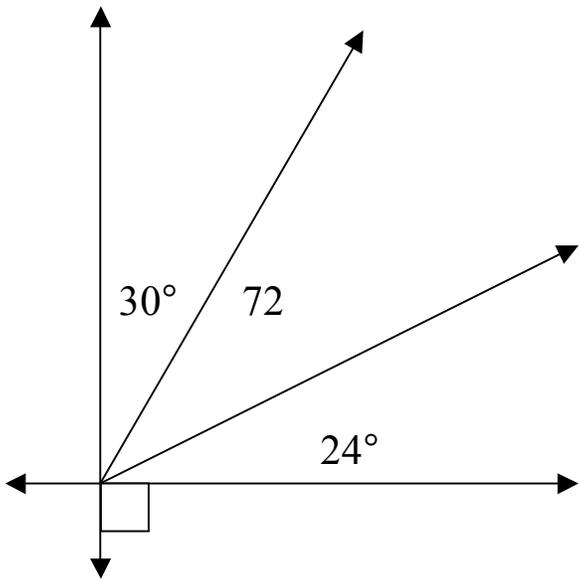
58.) There are always how many pair of alternate exterior angles?

59.) There are always how many pair of corresponding angles?

60.) Corresponding angles always pair together what two types of angles?

For #'s 61 - 75, find the measure of each numbered angle. Write the answers on the following page.





WORKSPACE FOR #'S 61 – 75:

61.

62.

63.

64.

65.

66.

67.

68.

69.

70.

71.

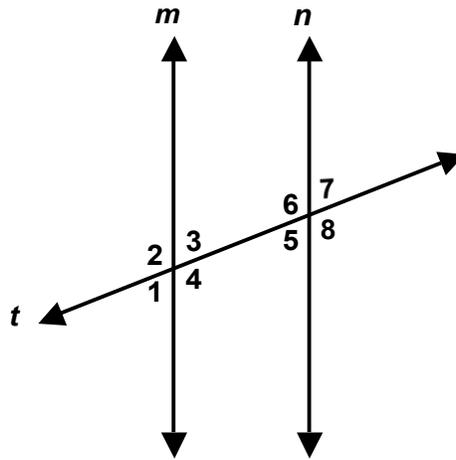
72.

73.

74.

75.

For #'s 76 – 94, use the figure below. In the figure,  $m \parallel n$  and  $t$  is a transversal. Fill in the blank with the best possible answer. (Make sure to label your answers properly!)



76.) How many exterior angles are there? 76.) \_\_\_\_\_

77.) State all of the exterior angles. 77.) \_\_\_\_\_

78.) How many interior angles are there? 78.) \_\_\_\_\_

79.) State all of the interior angles. 79.) \_\_\_\_\_

80 – 82.)  $\angle 3$  and  $\angle 4$  are examples of \_\_\_\_\_ angles, \_\_\_\_\_ angles, and \_\_\_\_\_ angles.

80.) \_\_\_\_\_

81.) \_\_\_\_\_

82.) \_\_\_\_\_

83.) A line that intersects two other lines is called a \_\_\_\_\_. 83.) \_\_\_\_\_

84.)  $\angle 2$  and  $\angle 6$  are examples of \_\_\_\_\_ angles. 84.) \_\_\_\_\_

85.)  $\angle 4$  and  $\angle 6$  are examples of \_\_\_\_\_ angles. 85.) \_\_\_\_\_

86.)  $\angle 2$  and  $\angle 8$  are examples of \_\_\_\_\_ angles. 86.) \_\_\_\_\_

87.)  $\angle 3$  and  $\angle 5$  are examples of \_\_\_\_\_ angles. 87.) \_\_\_\_\_

88.)  $\angle 2$  and  $\angle 4$  are examples of \_\_\_\_\_ angles. 88.) \_\_\_\_\_

89.) \_\_\_\_\_ are two lines that never intersect.

89.) \_\_\_\_\_

90.)  $\angle 5$  and  $\angle 7$  are examples of \_\_\_\_\_ angles.

90.) \_\_\_\_\_

91.) True or False.  $\angle 3$  and  $\angle 7$  are congruent. Explain why or why not.

91.) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

92.) How many **pairs** of vertical angles are there?

92.) \_\_\_\_\_

93.) State all the pairs of vertical angles.

93.) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

94.) Name the transversal in the figure above.

94.) \_\_\_\_\_