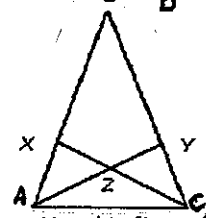
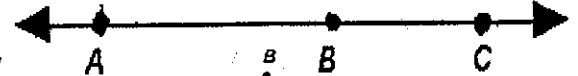


1. The intersection of 2 lines is a \_\_\_\_\_.

2. Name this line in 3 different ways. \_\_\_\_\_

3. Name 3 collinear points: \_\_\_\_\_

Name 3 ~~non~~ collinear points: \_\_\_\_\_



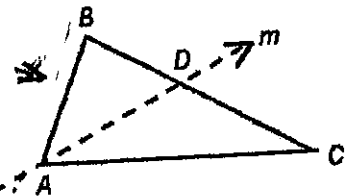
Use this figure for #3.

4. Which of the 3 undefined terms in geometry best describes the place where a pencil contacts a page when you start to write. \_\_\_\_\_

5. Name a real-world object that is a good illustration of a portion of a plane. \_\_\_\_\_

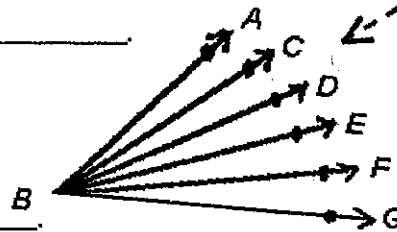
6. Why is a pencil not a good illustration of a straight line? \_\_\_\_\_

7. If  $\triangle ABC$  has  $m$  bisecting  $\angle A$ , and  $m$  intersects  $\overline{BC}$  at point D, what do we know about the  $\triangle$ ?



8. If  $m\angle S + m\angle T = 90$  degrees, then  $\angle S$  &  $\angle T$  are \_\_\_\_\_ angles.

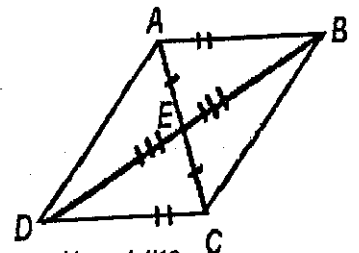
9. In the figure to the right,  $m\angle CBD + m\angle DBG = m\angle$  \_\_\_\_\_.



10. An acute  $\angle$ 's measure is \_\_\_\_\_.

11. A protractor is a tool used to measure  $\angle$ 's from 0 degrees to \_\_\_\_\_ degrees.

12. Based on the figure at the right,  $\overline{CD}$  is  $\cong$  to what segment? \_\_\_\_\_



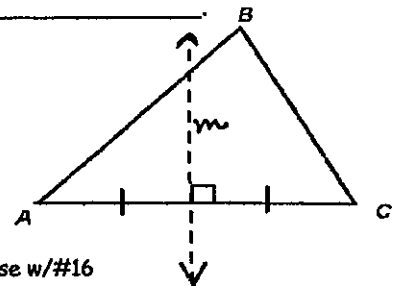
Use w/ #12

13. The intersection of two planes is a \_\_\_\_\_.

14. If 2 coplanar lines are perpendicular to the same line, then the lines are \_\_\_\_\_ to each other.

15. The 3  $\angle$  bisectors of a  $\triangle$  intersect at a \_\_\_\_\_ point: known as the \_\_\_\_\_.

16. In the  $\triangle$  to the right, line  $m$  is best described as a \_\_\_\_\_.



Use w/#16

17. Pushing a paper across a table is an example of which rigid transformation? \_\_\_\_\_

18. The motion of a second hand of a clock represents which rigid transformation? \_\_\_\_\_

19. If you translate the point  $(-4, 2)$  to the left 8 units, what is the ordered pair of the image? \_\_\_\_\_

20. The vertices of  $\triangle XYZ$  have these coordinates?  $X(-1, 3)$ ,  $Y(2, 5)$ , and  $Z(4, 4)$ . What are the image points of the vertices after the  $\triangle$  is reflected across the  $y$ -axis.

$X'$ : \_\_\_\_\_  $Y'$ : \_\_\_\_\_  $Z'$ : \_\_\_\_\_

21. "If it is snow, it is white." Which of the following are true according to the given conditional?

(a) Everything that is white is snow.

(b) Some snow isn't white

(c) ALL snow is white

(d) No snow is white.

22. Write the converse of the conditional: "If it is sunny, then it is Wednesday."

23. Explain how to find the converse of a conditional statement.

24. Shannon promised to give Abby a ride home if it rained after school on Friday. Write a conditional statement properly representing this situation.

25. A statement of the form "IF....., THEN....." is known as a \_\_\_\_\_ statement.

Identify the property illustrated in each of the following statements.

26. \_\_\_\_\_ If  $3x + 5 = 14$ , then  $3x = 9$ .

27. \_\_\_\_\_ If  $3x = 18$ , then  $6x = 36$ .

28. \_\_\_\_\_ If  $3x - 2 = -6$ , then  $3x = -4$ .

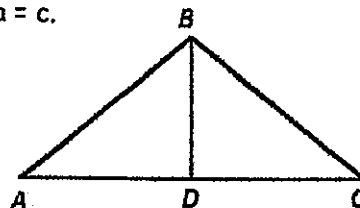
29. \_\_\_\_\_ For all real numbers,  $a = a$ .

30. \_\_\_\_\_ If  $XY = WZ$ , then  $WZ = XY$ .

31. \_\_\_\_\_ If  $a = b$  and  $b = c$ , then  $a = c$ .

32. If  $\overline{BD}$  bisects  $\angle ABC$ , fill in the following:

$m\angle$  \_\_\_\_\_ =  $m\angle$  \_\_\_\_\_



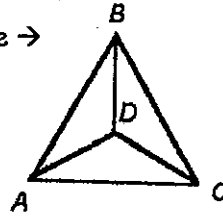
33. Write out the definition of a polygon from your textbook's glossary & then draw an example of a figure that is a polygon.

34. Write out the definition of a REGULAR polygon and then draw an example of a figure that is a regular polygon.

35. The center of a regular polygon has the \_\_\_\_\_ to each vertex.

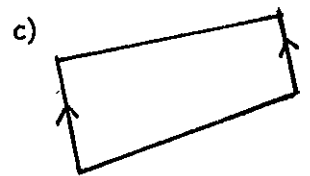
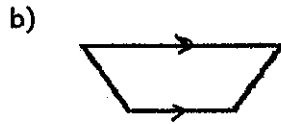
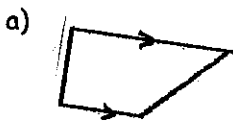
36. Use 3 letters to name ALL 3 central  $\angle$ 's in this figure  $\rightarrow$

\_\_\_\_\_



37. Name all the quadrilaterals that have 4  $\cong$  sides:

38. Circle all figures that are trapezoids:



39. From your textbook glossary, write out the complete definition for a parallelogram.

40. What property makes a parallelogram a rectangle?

41. What makes a parallelogram a square? 4 \_\_\_\_\_ sides & 4 \_\_\_\_\_  $\angle$ 's

42. If a figure is a square, what other special quadrilaterals is it as well?

43. If a figure is a rectangle, is it a:

- a) square?      b) quadrilateral?      c) trapezoid?      d) parallelogram?

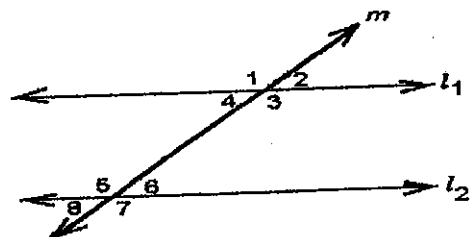
Using the figure to the right, name ALL pairs of the following special  $\angle$ 's:

44. \_\_\_\_\_ alternate interior

45. \_\_\_\_\_ same side interior

46. \_\_\_\_\_ corresponding

47. \_\_\_\_\_ alternate exterior



48. From your textbook glossary, write here the COMPLETE definition of a transversal.

Which of the following would indicate that  $l_1$  and  $l_2$  are parallel?

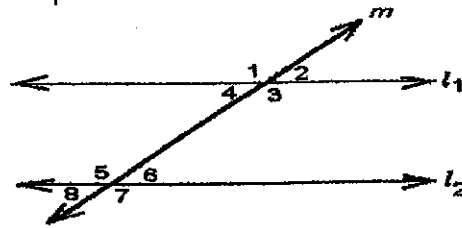
49.  $\angle 1$  and  $\angle 7$  are complementary YES or NO

50.  $\angle 1$  &  $\angle 7$  are supplementary YES or NO

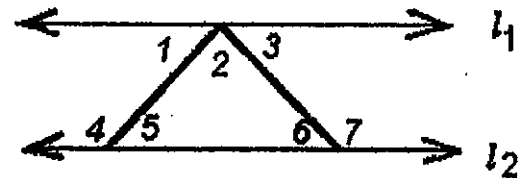
51.  $\angle 4$  &  $\angle 5$  are supplementary YES or NO

52.  $\angle 4$  &  $\angle 6$  are congruent YES or NO

53.  $\angle 2$  &  $\angle 4$  are congruent YES or NO



54. If  $l_1$  is parallel to  $l_2$ , and  $m\angle 1 = 55$  degrees &  $m\angle 2 = 56$  degrees, what is the  $m\angle 6$ ? \_\_\_\_\_ degrees



55. What is the formula used to find the SUM of the interior  $\angle$ 's of a polygon?

56. What is the formula used to find the measure of 1 interior  $\angle$  in a REGULAR polygon?

Use your answers to 55 & 56 to find the SUM and the measure of 1 interior  $\angle$  in these polygons.

57. dodecagon

58. quadrilateral

59. hexagon

60. pentagon

SUM: \_\_\_\_\_

SUM: \_\_\_\_\_

SUM: \_\_\_\_\_

SUM: \_\_\_\_\_

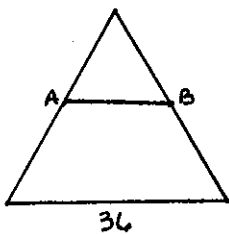
1  $\angle$ : \_\_\_\_\_

1  $\angle$ : \_\_\_\_\_

1  $\angle$ : \_\_\_\_\_

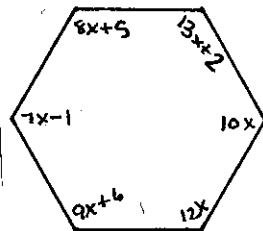
1  $\angle$ : \_\_\_\_\_

61.



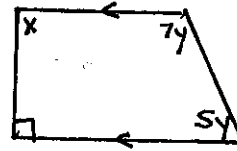
$AB =$  \_\_\_\_\_

62.



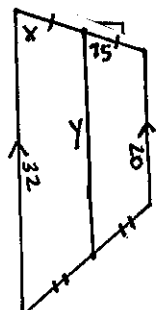
$X =$  \_\_\_\_\_

63.



$x =$   
 $y =$

64.



$x =$   
 $y =$

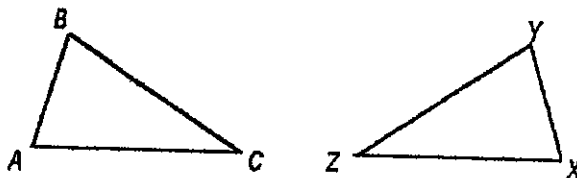
65. Segment AB has endpoints with the coordinates A(16, 1) and B (8, -4). If  $\overline{XY} \perp \overline{AB}$ , What is the slope of  $\overline{XY}$ ? \_\_\_\_\_

66. If quadrilateral GHIJ  $\cong$  quadrilateral WXYZ,  $\overline{IJ} \cong$  \_\_\_\_\_ and  $\angle H \cong \angle$  \_\_\_\_\_

Given  $\triangle ABC$  and  $\triangle XYZ$  to the right, & the following information, can we prove  $\triangle ABC \cong \triangle XYZ$ ? YES or NO & , if YES, indicate what postulate would apply.

67.  $m\angle C = 34$  degrees,  $AB = 11$  cm,  $XY = 11$  cm,  $m\angle Z = 34$  degrees

YES or NO; if YES, which postulate: \_\_\_\_\_



68.  $AC = 36$  cm,  $BC = 47$  cm,  $m\angle C = 35$  degrees,  $m\angle Z = 35$  degrees,  $ZY = 47$  cm,  $XZ = 36$  cm

YES or NO; if YES, which postulate: \_\_\_\_\_

69.  $BC = 48$  cm,  $BA = 20$  cm,  $m\angle B = 89$  degrees,  $ZY = 48$  cm,  $YX = 20$  cm, &  $m\angle Y = 89$  degrees

YES or NO; if YES, which postulate: \_\_\_\_\_

70. Is there ever a time when 2 sides and a non-included angle can be used to prove 2  $\triangle$ 's  $\cong$ ?

71. List the 5 postulates that may be used to prove 2 triangles congruent: \_\_\_\_\_

72. In quadrilateral LMNO, all opposite sides are parallel,  $LM = ON$  and  $LO = MN$ . If  $m\angle L = 93$  degrees, what is the measure of  $\angle N$ ? \_\_\_\_\_ the measure of  $\angle M$ ? \_\_\_\_\_

73. In general, if  $RS = RU$  and RSTU is a parallelogram, is RSTU a trapezoid? a rhombus? a rectangle?

74. Use appropriate notation to name the ray with an endpoint at X and Y being another point on the ray.

75. The \_\_\_\_\_ is the single point where all 3  $\angle$  bisectors in a  $\triangle$  meet. It is the center of a(n) \_\_\_\_\_ circle.

76. The \_\_\_\_\_ is the single point where all 3  $\perp$  bisectors in a  $\triangle$  meet. It is the center of a(n) \_\_\_\_\_ circle.

Name these triangles:

77.  $\triangle$  with 3  $\cong$  sides

78.  $\triangle$  with 2  $\cong$  sides

79.  $\triangle$  with 0  $\cong$  sides

80.  $\triangle$  w/3 acute  $\angle$ 's

81.  $\triangle$  w/1 right  $\angle$

82.  $\triangle$  w/1 obtuse  $\angle$