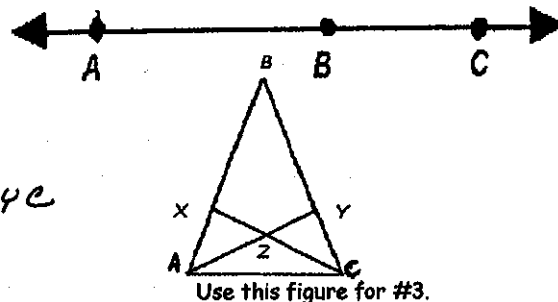


1. The intersection of 2 lines is a point
2. Name this line in 3 different ways. AB, AC, BC
3. Name 3 collinear points: A, X, B or A, Z, Y or XZC, or BYC
Name 3 collinear points: BA, Z (others)

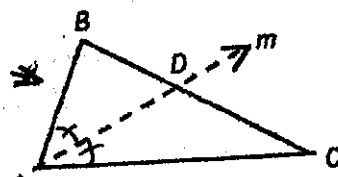


4. Which of the 3 undefined terms in geometry best describes the place where a pencil contacts a page when you start to write. point
5. Name a real-world object that is a good illustration of a portion of a plane. sheet of paper
6. Why is a pencil not a good illustration of a straight line? it's a 3D object

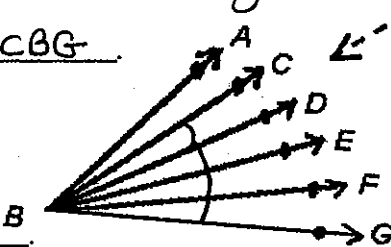
7. If $\triangle ABC$ has m bisecting $\angle A$, and m intersects \overline{BC} at point D, what do we know about the \triangle ? $\angle BAD \cong \angle CAD$

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

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

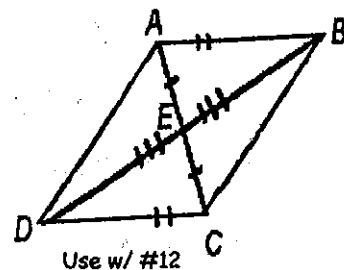


10. An acute \angle 's measure is $\angle 90^\circ$



11. A protractor is a tool used to measure \angle 's from 0 degrees to 180 degrees.

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



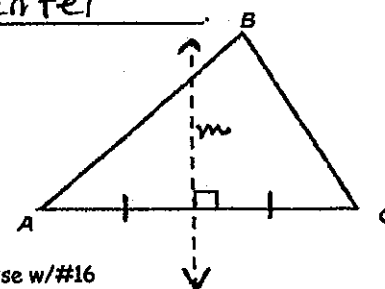
13. The intersection of two planes is a line.

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 single point: known as the incenter

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

\perp bisector



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

18. The motion of a second hand of a clock represents which rigid transformation? rotation
19. If you translate the point $(-4, 2)$ to the left 8 units, what is the ordered pair of the image? $(-12, 2)$

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' : $(1, 3)$ y' : $(-2, 5)$ z' : $(-4, 4)$

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."

If it is Wed, then it is sunny.

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

interchange the hypothesis & conclusion

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

If it rains after school Fri, then Shannon will give Abby a ride home.

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

Identify the property illustrated in each of the following statements.

26. - prop = If $3x + 5 = 14$, then $3x = 9$.

27. * prop = If $3x = 18$, then $6x = 36$.

28. + prop = If $3x - 2 = -6$, then $3x = -4$.

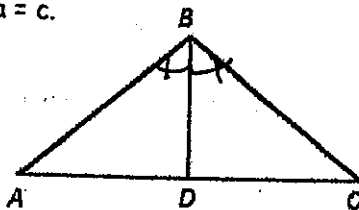
29. reflexive prop = For all real numbers, $a = a$.

30. symmetric prop = If $XY = WZ$, then $WZ = XY$.

31. transitive prop = If $a = b$ and $b = c$, then $a = c$.

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

$m\angle$ ABD = $m\angle$ DBC



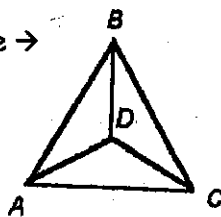
33. Write out the definition of a polygon from your textbook's glossary & then draw an example of a figure that is a polygon.

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 same distance to each vertex.

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

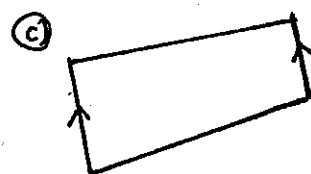
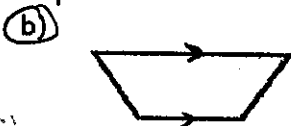
$\angle BDA$ $\angle BDC$ $\angle ADC$



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

square, rhombus

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?

4 rt \angle 's

41. What makes a parallelogram a square? 4 \cong sides & 4 right \angle 's

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

parallelogram, rectangle, rhombus

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

a) square?

NO

b) quadrilateral?

yes

c) trapezoid?

NO

d) parallelogram?

yes

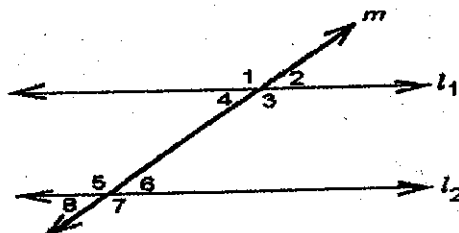
Using the figure to the right, name ALL pairs of the following special \angle 's:

44. $\angle 4 \hat{=} \angle 6$; $\angle 3 \hat{=} \angle 5$ alternate interior

45. $\angle 4 \hat{=} \angle 5$; $\angle 3 \hat{=} \angle 6$ same side interior

46. $\angle 1 \hat{=} \angle 5$; $\angle 2 \hat{=} \angle 6$; $\angle 4 \hat{=} \angle 8$; $\angle 3 \hat{=} \angle 7$ corresponding

47. $\angle 1 \hat{=} \angle 7$; $\angle 2 \hat{=} \angle 8$ 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?

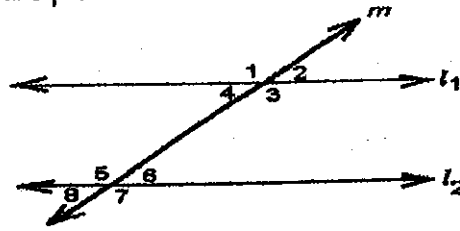
49. $\angle 1$ and $\angle 7$ are complementary YES or **NO**

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

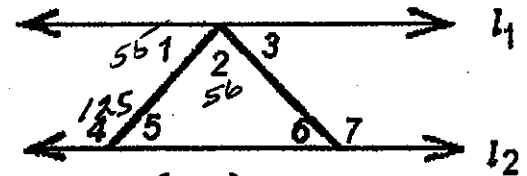
51. $\angle 4$ & $\angle 5$ are supplementary **YES** or NO

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 $m\angle 6$? 69 degrees



55. What is the formula used to find the SUM of the interior \angle 's of a polygon? $(n-2)180$

56. What is the formula used to find the measure of 1 interior \angle in a REGULAR polygon? $\frac{(n-2)180}{n}$

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: 1800

SUM: 360

SUM: 720

SUM: 540

1 \angle : 150

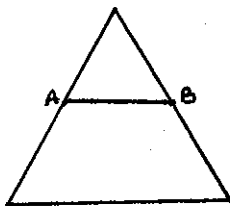
1 \angle : 90

1 \angle : 120

1 \angle : 108

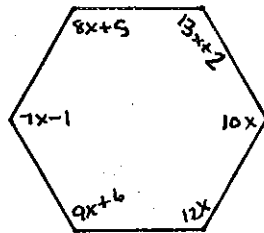
not parallel

61.



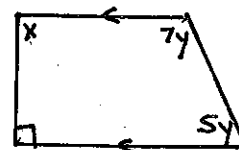
$AB = 18$

62.



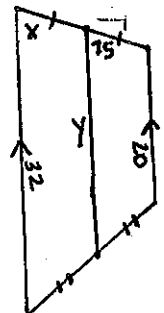
$x = 12$

63.



$x = 90$
 $y = 15$

64.



$x = 75^\circ$
 $y = 26$

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} ? $-\frac{8}{5}$

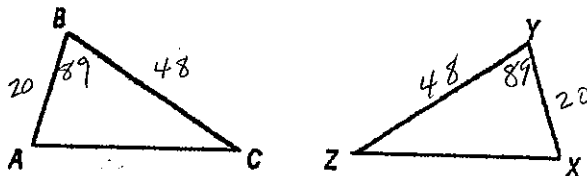
$$m \text{ of } \overline{AB} = \frac{-4-1}{8-16} = \frac{-5}{-8} = \frac{5}{8}$$

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

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

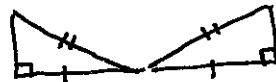
YES or NO; if YES, which postulate: SAS

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: SAS

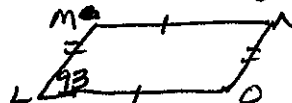
70. Is there ever a time when 2 sides and a non-included angle can be used to prove 2 \triangle 's \cong ?

yes in a rt \triangle w/ 1 side being hyp.

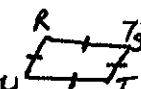


71. List the 5 postulates that may be used to prove 2 triangles congruent: SSS, SAS, ASA, AAS, HL

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 $\angle N$? 93 the measure of $\angle M$? 87



73. In general, if $RS = RU$ and $RSTU$ is a parallelogram, is $RSTU$ a trapezoid? No a rhombus? Yes a rectangle? No



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



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

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

Name these triangles:

77. \triangle with 3 \cong sides

equilateral

78. \triangle with 2 \cong sides

isos

79. \triangle with 0 \cong sides

scalene

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

acute

81. \triangle w/1 right \angle

right

82. \triangle w/1 obtuse \angle

obtuse