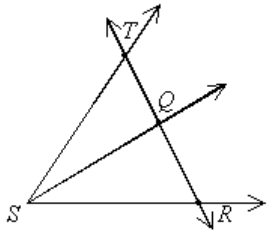
Name: _____ Date: _____ Period: ___

1) Name three points that are collinear. _____



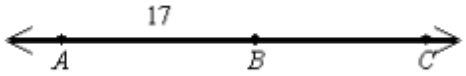

2) The notation for the length of the segment between *P* and *Q* is _____.

3) If *RS* = 39.3 and *QS* = 54.4, find *QR*._____


4) Let $B$ be between $C$ and $D$. Use the Segment Addition Postulate to solve for $w$. _____

$CB = 4w - 4$ $BD = 2w - 8$ $CD = 24$

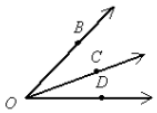
5) If *AB* = 17 and *AC* = 32, find the length of $\overline{BC}$._____




6) Find the distance between the points (–4, 6) and (–1, 5)._____

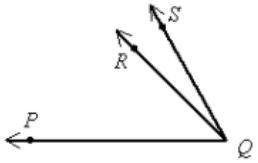
7) Find the midpoint of the segment with endpoints (–2, 4) and (–4, 3)._____

8) If $m\angle BOD = 46°$ and $m\angle BOC = 26°$, then what is the measure of $\angle COD$? _____

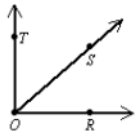



9) $m\angle SQR = (2x + 6)°$ and $m\angle PQR = (10x - 5)°$ and $m\angle SQP = 61°$.

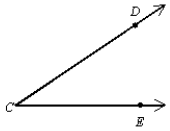
Find $m\angle SQR$ _____ and $m\angle PQR$ _____.



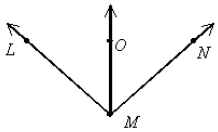
10) If angle *TOS* is acute and angle *TOR* is right, then angle *ROS* is what kind of angle?
_____




11) Write the possible names for the angle to the right:
_____



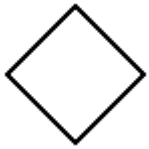

12) In the figure (not drawn to scale), $\overrightarrow{MO}$ bisects $\angle LMN$, $m\angle LMO = (6x - 40)°$, and $m\angle NMO = (x + 65)°$. Solve for $x$ and find $m\angle LMN$. _____




13) Indicate whether the figure is a polygon or not

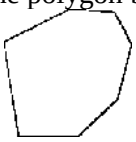
a. 

b. 

c. 

d. 

14) Name the polygon below: _____



15) Indicate whether the figure is convex or concave.

a. 

b. 

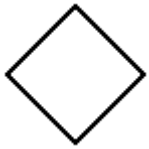
c. 

d. 

16) Indicate whether the figure is regular or irregular.

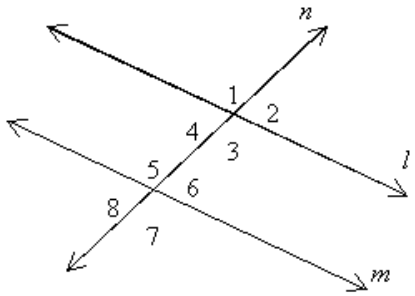
a. 

b. 

c. 

d. 

**For #17-19, use the figure to the right:**

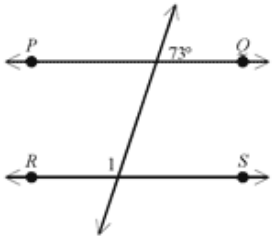



17) In the figure, $\angle 1$ and $\angle 7$ are _____.

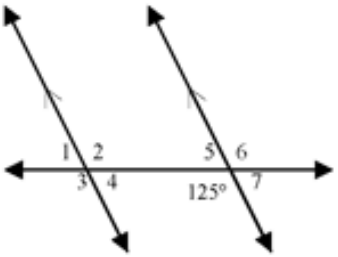
18) In the figure, $\angle 6$ and $\angle 3$ are _____.

19) In the figure, $\angle 6$ and $\angle 2$ are _____.

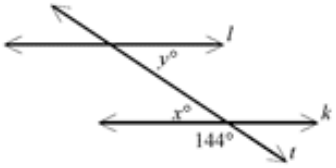
20) Find $m\angle 1$ in the figure to the right. $\overleftrightarrow{PQ}$ and $\overleftrightarrow{RS}$ are parallel._____



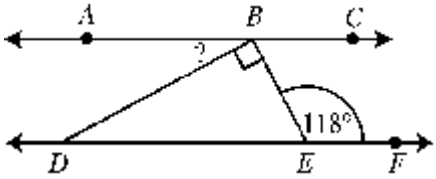

21) Use the figure below to find the measure of $\angle 6$._____



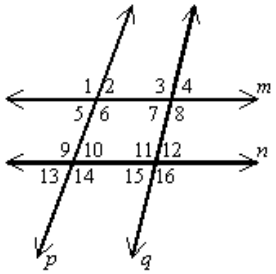

22) In the figure below, if *l* and *k* are parallel lines, what is the value of *x* _____and *y* _____?



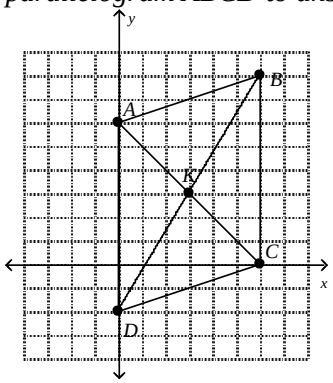

23) If $\overline{AC}$ is parallel to $\overline{DF}$, what is the measure, in degrees, of $\angle ABD$? _____




24) Line *m* is parallel to line *n* and they are each intersected by the same two transversals. List an angle that is NOT necessarily congruent to $\angle 4$?_____

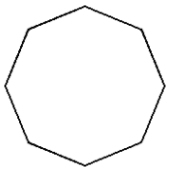


25) *Refer to parallelogram ABCD to answer to following questions.*




Are the diagonals congruent? Justify your answer.

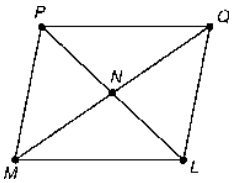
26) How many triangles are formed by drawing diagonals from one vertex in the figure? _____ Find the sum of the measures of the angles in the figure. _____



27) The sum of the measures of the interior angles of a convex quadrilateral is _____.

28) The measure of each interior angle of a regular hexagon is _____.

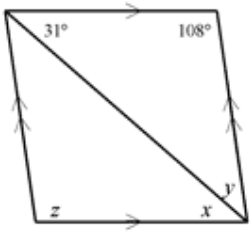
29) For parallelogram *PQLM* below, if $m\angle PML = 83°$, then $m\angle PQL =$_____ .



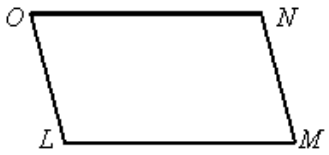

30) Consecutive angles in a parallelogram are always _____.

31) Choose the statement that is NOT ALWAYS true.
For any parallelogram _____.
a. the diagonals bisect each other
b. opposite angles are congruent
c. the diagonals are perpendicular
d. opposite sides are congruent

32) Find the value of the variables in the parallelogram.



33) If $ON = 6x - 6$, $LM = 5x + 2$, $NM = x + 5$, and $OL = 3y + 7$, find the values of *x* and *y* given that *LMNO* is a parallelogram.




34) Which statement is true?

a. All parallelograms are quadrilaterals.
b. All rectangles are squares.
c. All quadrilaterals are parallelograms.
d. All quadrilaterals are squares.

35) The diagonals of a parallelogram always _____.

a. are congruent
b. are parallel
c. bisect each other
d. are perpendicular

36) Which statement is NOT always true of a rhombus?

a. The diagonals are perpendicular to each other.
b. The diagonals bisect each other.
c. Each diagonal is longer than at least one side.
d. The sum of the diagonals is less than the perimeter.

37) Use slope and the Distance Formula to determine the most precise name for the figure: *A*(–3, –7), *B*(2, –3), *C*(9, 4), *D*(4, 0).

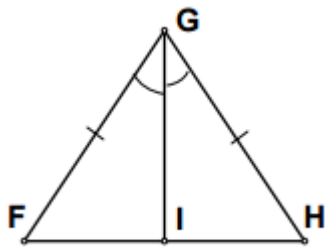
38) If all four sides of a quadrilateral are congruent, the quadrilateral is a _____.

39) Which statement is false?

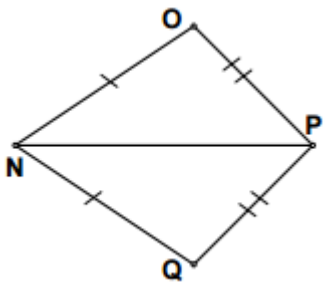
a. Every rhombus is a quadrilateral.
b. Some rhombuses are rectangles.
c. Every parallelogram is a rhombus.
d. Every square is a parallelogram.

In #40-50 State the postulate, theorems, and properties that can be used to conclude that these triangles are congruent. If they are not congruent, state so.

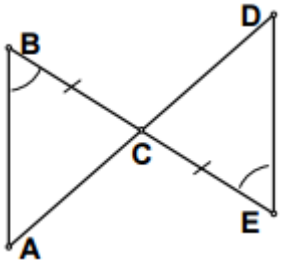
40)

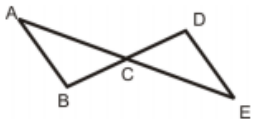



41)

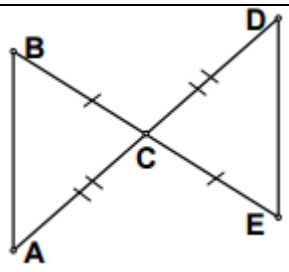



42)

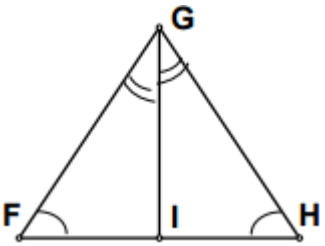




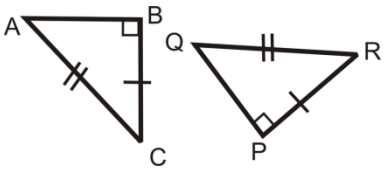

43) C bisects $\overline{AE}$ and $\overline{BD}$, and $\overline{AB} \cong \overline{DE}$



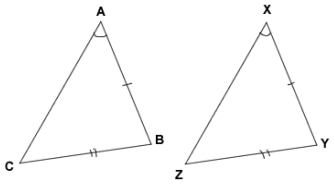

44)



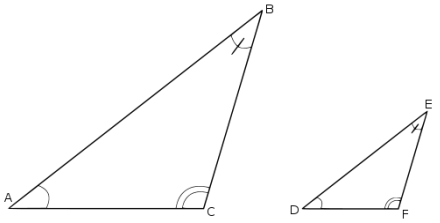

45)



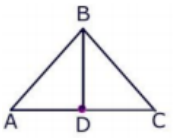

46)



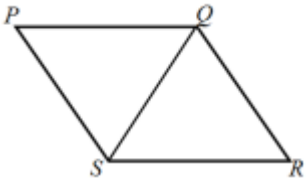

47)




48)



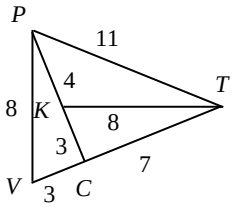

49) $\overline{BD} \perp \overline{AC}$, D is the midpoint of $\overline{AC}$



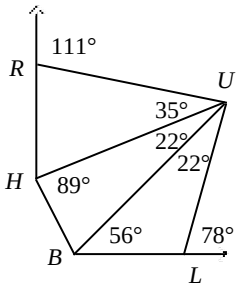

50) $\overline{PQ} \| \overline{SR}$

*Determine the relationship between the measures of the given angles or sides.*

51) $\angle PTC, \angle VPT$



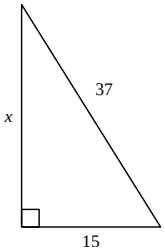

52) $\overline{HB}, \overline{BL}$



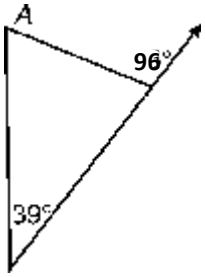

*Determine whether the given measures can be the lengths of the sides of a triangle. Write* yes *or* no. *Explain.*

53) 3, 9, 10 _____

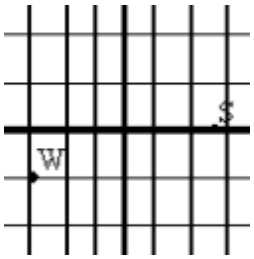
54) Find *x*. _____



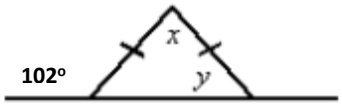
55) Refer to the figure below. $m\angle A =$ _____.



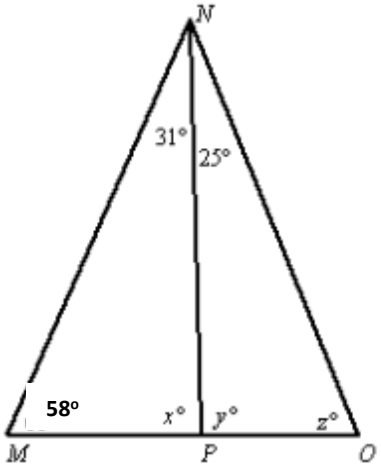

56) On a certain farm, individual crops are laid out in rectangles that are 30 feet north and south, and 20 feet east and west. How far would you have to walk to get from the shed (S) to the well (W) if you did not step on any crops? How far would it be if you walked diagonally across the crops?



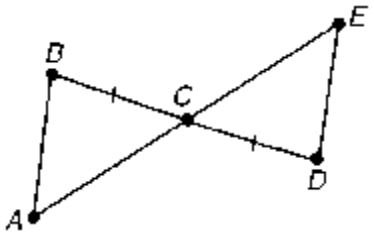

57) Find the values of *x* and *y*.




58) What is the value of *z*? (The figure may not be drawn to scale.)

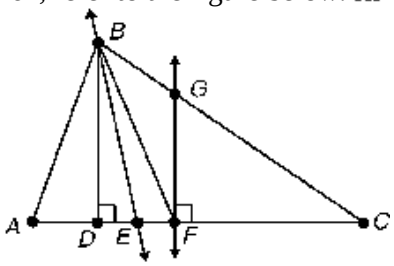


59) What must be true in order for $\Delta ABC \cong \Delta EDC$ by the ASA Congruence Postulate?




60) What is the measure of each base angle of an isosceles triangle if its vertex angle measures 50 degrees?

For #61-62, refer to the figure below. $\overline{AF} \cong \overline{FC}$, $\angle ABE \cong \angle EBC$




61) What is an altitude of ΔABC?

62) What is a median of ΔABC?

63) What is an angle bisector of ΔABC?

64) What is a perpendicular bisector of ΔABC?

65) Find the measure of the interior angles to the nearest tenth. (Drawing is not to scale.)