

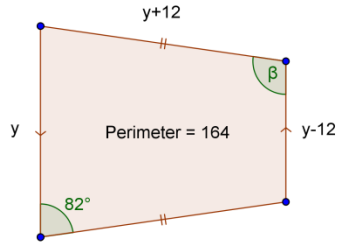
NAME: \_\_\_\_\_ PERIOD: \_\_\_\_\_ DATE: \_\_\_\_\_

TRUE-FALSE: Identify each statement as (T) rue or (F) alse.

1. \_\_\_\_ The measure of one interior angle of a regular quadrilateral is  $90^\circ$ .
2. \_\_\_\_ If two triangles are congruent then at least two angles and one side must be congruent.
3. \_\_\_\_ The line through points  $(-2, 5)$  and  $(-3, 2)$  is parallel to the line  $y = 3x + 7$ .
4. \_\_\_\_ You can create four diagonals from one vertex of a pentagon.
5. \_\_\_\_ A right triangle can be isosceles.
6. \_\_\_\_ If  $A \perp B$  and  $B \perp C$  then  $A \parallel C$ .
7. \_\_\_\_ If the base angles of an isosceles triangle are complementary, then the triangle cannot be obtuse.
8. \_\_\_\_ If the measure of one exterior angle of a regular polygon is  $36^\circ$  then the polygon has 12 sides.
9. \_\_\_\_ If  $\triangle ABC \cong \triangle DEF$ , then  $\angle E \cong \angle B$ .
10. \_\_\_\_ If the corresponding sides of two triangles are congruent then the triangles must be congruent.
11. \_\_\_\_ If two angles of a triangle are complementary, then the remaining angle is a right angle.
12. \_\_\_\_ The line  $2y = x + 5$  is perpendicular to the line  $6x + 3y = 8$ .
13. \_\_\_\_ The sum of the lengths of any two sides of a triangle is always greater than the length of the third side.
14. \_\_\_\_ The sum of the measures of the  $n$  interior angles of an  $n$ -gon is  $360^\circ$ .
15. \_\_\_\_ The sum of the measures of the exterior angles of a stop sign is  $360^\circ$ .
16. \_\_\_\_ The diagonals of a parallelogram are congruent.
17. \_\_\_\_ A pair of base angles of an isosceles trapezoid are supplementary.
18. \_\_\_\_ The diagonals of a rectangle are perpendicular bisectors of each other.

Find the missing measures in the figures.

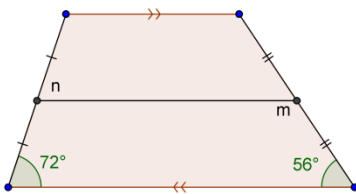
19.



$y =$  \_\_\_\_\_

$\beta =$  \_\_\_\_\_

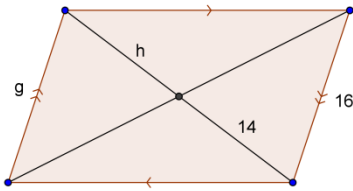
20.



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

$n =$  \_\_\_\_\_

21.

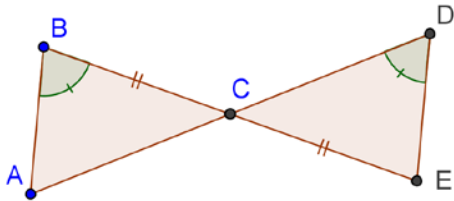


$g =$  \_\_\_\_\_

$h =$  \_\_\_\_\_

Determine which triangles, if any, are congruent. State the congruence conjecture that supports your answer. If the triangles cannot be shown to be congruent from the information given, write "CBD" (Cannot be Determined).

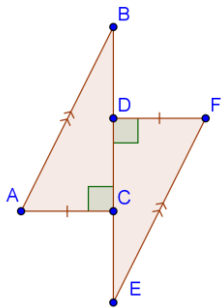
22.



$\triangle ABC \cong \triangle$  \_\_\_\_\_

Conjecture: \_\_\_\_\_

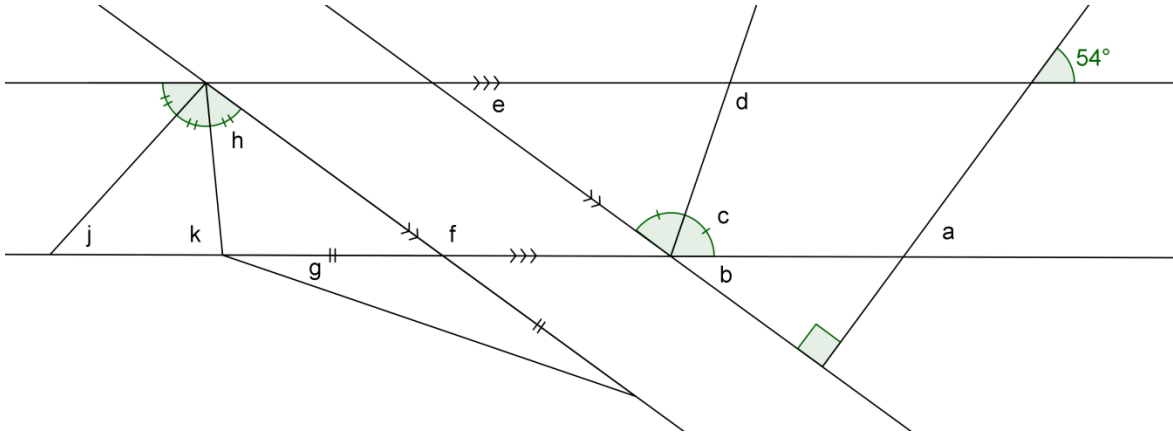
23.



$\triangle ABC \cong \triangle$  \_\_\_\_\_

Conjecture: \_\_\_\_\_

24. Find the measure of each lettered angle in the figure below.

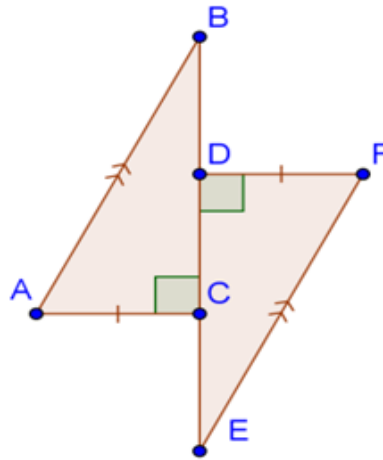


- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_
- f. \_\_\_\_\_
- g. \_\_\_\_\_
- h. \_\_\_\_\_
- j. \_\_\_\_\_
- k. \_\_\_\_\_

25. Fill in the blanks for each step in the flow chart proof below.

Given:  $\angle ACD \cong \angle CDF$   
 $\overline{AC} \cong \overline{DF}$

Show:  $\overline{BC} \cong \overline{DE}$



$\angle ACD \cong \angle CDF$   
 1. \_\_\_\_\_

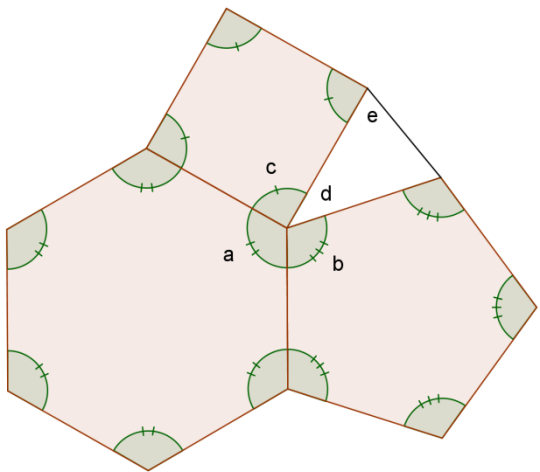
2. \_\_\_\_\_

3. \_\_\_\_\_

$\Delta$  \_\_\_\_\_  $\cong$   $\Delta$  \_\_\_\_\_  
 4. \_\_\_\_\_

5. \_\_\_\_\_

26. Find the slope and y-intercept for the line  $3x - 2y = 8$ .
27. Find the equation of the line through the point  $(1,0)$  and the point  $(-3,7)$ .
28. Find the point of intersection for the two lines  $2y = 4x + 8$  and  $y = x + 5$ .
29. Find the measure of each lettered angle in the figure below.



a. \_\_\_\_\_  
 b. \_\_\_\_\_  
 c. \_\_\_\_\_

d. \_\_\_\_\_  
 e. \_\_\_\_\_