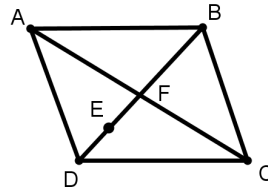


**Geometry**  
**Chapter 4 Review Worksheet**

Name \_\_\_\_\_  
Date \_\_\_\_\_ Period \_\_\_\_\_

In problems 1-5, determine whether each statement is true (T) or false (F) based on the diagram.

Given:  $\angle DAF \cong \angle DCF$   
 $\overline{AB} \cong \overline{CB}$



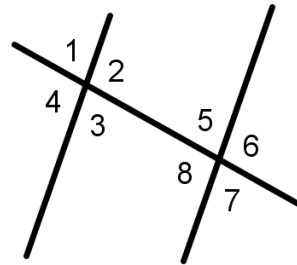
- #1.  $\overline{AD} \cong \overline{CD}$  1. \_\_\_\_\_
- #2.  $\overline{BD} \perp$  bisector of  $\overline{AC}$ . 2. \_\_\_\_\_
- #3. F is equidistant from A and C. 3. \_\_\_\_\_
- #4. E is equidistant from F and D. 4. \_\_\_\_\_
- #5.  $\overline{BF}$  is an altitude of  $\triangle ABC$  5. \_\_\_\_\_

#6.  $\angle 5$  and what other angle are alternate interior angles?

\_\_\_\_\_

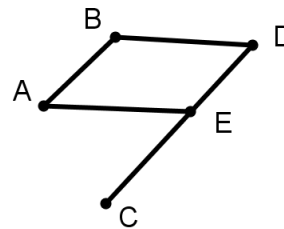
#7.  $\angle 4$  and what other angle are corresponding angles?

\_\_\_\_\_



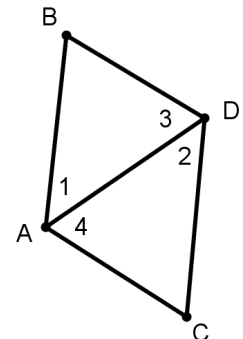
#8. Name a pair of corresponding angles for  $\overline{AE}$  and  $\overline{BD}$  with transversal  $\overline{CD}$

\_\_\_\_\_



#9. Multiple choice: For which two lines are  $\angle 3$  and  $\angle 4$  a pair of alternate interior angles?

- a)  $\overline{AB}$  and  $\overline{CD}$
- b)  $\overline{AB}$  and  $\overline{DB}$
- c)  $\overline{AC}$  and  $\overline{BD}$
- d)  $\overline{AB}$  and  $\overline{AD}$
- e) none of these



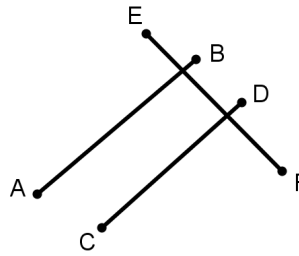
#10. Fill in the blank:

If a line segment from a vertex is a median to a triangle, it intersects the opposite side at that side's \_\_\_\_\_

#11. In the diagram, if  $\overline{AB}$  has a slope of 2, and  $\overline{CD} \parallel \overline{AB}$  and  $\overline{EF} \perp \overline{AB}$

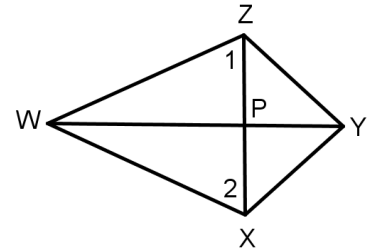
a) what is the slope of  $\overline{CD}$ ? \_\_\_\_\_

b) what is the slope of  $\overline{EF}$ ? \_\_\_\_\_



#12. Complete the proof: Given: P is the midpoint of  $\overline{XZ}$   
 $\angle 1 \cong \angle 2$

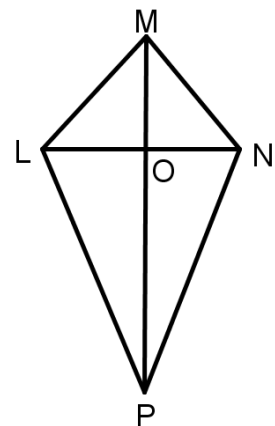
Prove:  $\overline{XY} \cong \overline{YZ}$



Statement	Reason
1. P is the midpoint of $\overline{XZ}$	1. Given
2. $\angle 1 \cong \angle 2$	2. Given
3.	3.
4.	4.
5. $\overline{WY} \perp bis. \overline{XZ}$	5.
6. $\overline{XY} \cong \overline{YZ}$	6.

#13. Complete the proof: Given:  $\overline{LO} \cong \overline{NO}$   
 $\overline{LP} \cong \overline{NP}$

Prove:  $\angle LMO \cong \angle NMO$



Statement	Reason
1. $\overline{LO} \cong \overline{NO}$	1. Given
2. $\overline{LP} \cong \overline{NP}$	2. Given
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.

- #14. **Draw a figure, state both what is given and the conclusion: (setup only – do not prove)**  
 The bisector of the vertex angle of an isosceles triangle is perpendicular to the base.

Given:

Prove:

#15.

- a) If the median from A intersects  $\overline{BC}$  at M, what are the coordinates of M?

a) \_\_\_\_\_

- b) Find the slope of  $\overline{BC}$ .

b) \_\_\_\_\_

- c) Is  $\overline{AR}$  parallel to  $\overline{BC}$ ?

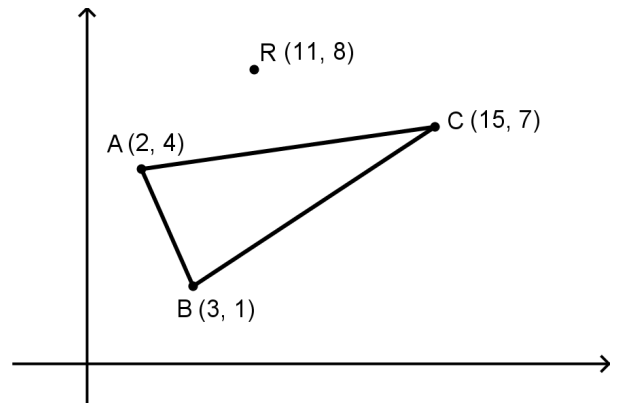
c) \_\_\_\_\_

- d) Find the slope of  $\overline{AB}$ .

d) \_\_\_\_\_

- e) Is  $\overline{AB}$  perpendicular to  $\overline{BC}$ ?

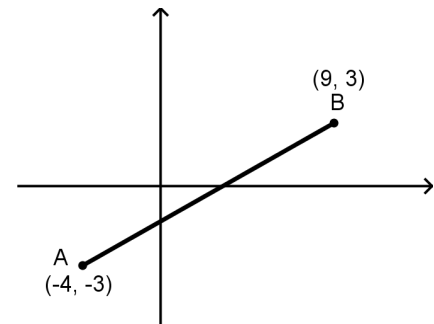
e) \_\_\_\_\_



#16.

- a) A is slid 5 units directly left to point C. Find C \_\_\_\_\_

- b) B is reflected over the y-axis to point D. Find D \_\_\_\_\_



#17.

- a) Name all pairs of alternate interior angles:

- b) Name all pairs of alternate exterior angles:

- c) Name all pairs of corresponding angles:

- d) Name 5 pairs of supplementary angles:

