

# Chapter 1 Review

Name \_\_\_\_\_ Hr. \_\_\_\_\_

You should understand and recognize the definition of the following VOCABULARY words.

**Lesson 1.1**

- A. Point
- B. Collinear Points
- C. Plane
- D. Coplanar

**Lesson 1.2**

- E. Line
- F. Line Segment
- G. Congruent

**Lesson 1.3**

- H. Distance
- I. Midpoint

**Lesson 1.4**

- J. Ray
- K. Angle
- L. Acute angle
- M. Right angle
- N. Obtuse angle

**Lesson 1.5**

- O. Complementary Angles
- P. Supplementary Angles
- Q. Linear Pair
- R. Vertical Angles
- S. Adjacent Angles
- T. Perpendicular Lines

**Lesson 1.6**

- U. Concave
- V. Convex
- Q. Polygon
- X. Regular Polygon
- Y. Perimeter

**Lesson 1.7**

- Z. Bisector
- AA. Angle Bisector
- BB. Perpendicular Bisector

Show all work for the following questions.

For Questions 1-4, use the figure at the right.

1. Name three collinear points. \_\_\_\_\_

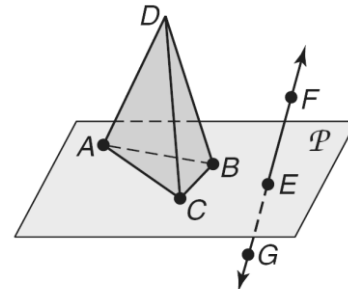
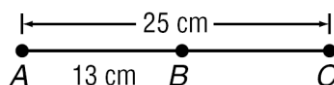
2. Name two points in plane  $\mathcal{P}$ . \_\_\_\_\_

3. Name the intersection of plane  $\mathcal{P}$  and the plane that contains points  $B$ ,  $C$ , and  $D$ .

- A. point  $B$
- B.  $\overline{BD}$
- C.  $\overline{BC}$
- D.  $\triangle BCD$

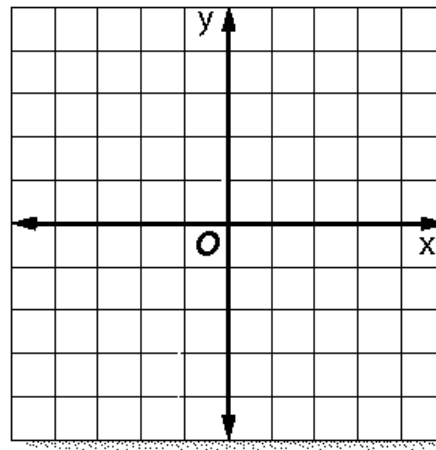
4. Give another name for  $\overrightarrow{FE}$ . \_\_\_\_\_

5. Find the length of  $\overline{BC}$ .



6. a. Use the coordinates to find the length of segments AB and CD.

A(-3,0) B(0, 4) C(1, 2) D (2, 4)



b. If you wanted to make segment AB the same length as CD, where could you move point A?

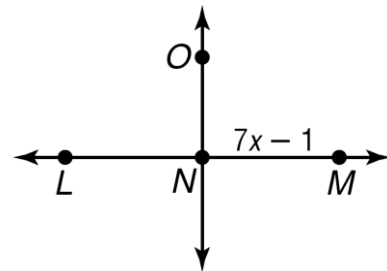
7. a. Given A(-4, 7) and S (5, 3), find the coordinates of the midpoint of  $\overline{AS}$ .

b. What quadrant does the midpoint lie in?

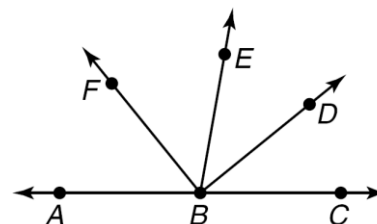
**In Questions 8 and 9, you will be dealing with bisectors. You will need to consider the following: What does it mean for an angle to be bisected? What happens if a segment is bisected?**

8. Find the length of  $\overline{LM}$  if  $\overline{ON}$  is the **bisector** of  $\overline{LM}$  and  $LN = 3x + 2$ .

*Hint: Label LN first, then think about how LN and NM must be related if  $\overline{ON}$  bisects  $\overline{LM}$ .*



9. In the figure,  $\overrightarrow{BA}$  and  $\overrightarrow{BC}$  are opposite rays and  $\overrightarrow{BD}$  bisects  $\angle EBC$ . If  $m\angle EBD = 4x + 16$  and  $m\angle DBC = 6x + 4$ , find  $m\angle EBD$ .



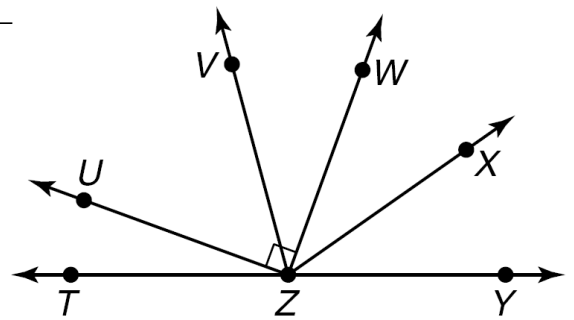
10. T is between R and S. Find x and RT if  $RS = 8x - 3$ ,  $RT = 3x + 5$ , and  $TS = 27$ .

x = \_\_\_\_\_

RT = \_\_\_\_\_

For Questions 11 and 12, refer to the figure at the right.

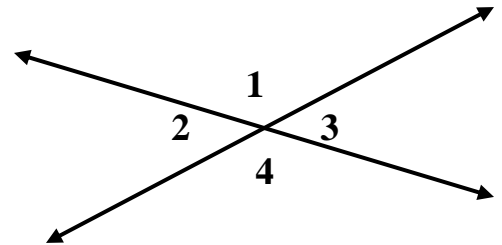
- 11. a) Measure  $\angle YZU$  to the nearest degree.
- b) Classify  $\angle YZU$  as acute, right, or obtuse.
- c)  $\angle YZU$  is a **linear pair** with what angle? \_\_\_\_\_
- d) **Calculate** the measure of the angle in 11c.



- 12. a) Measure  $\angle TZV$  to the nearest degree.
- b) Classify  $\angle TZV$  as acute, right, or obtuse.
- c)  $\angle TZV$  is **adjacent** with what angle? \_\_\_\_\_

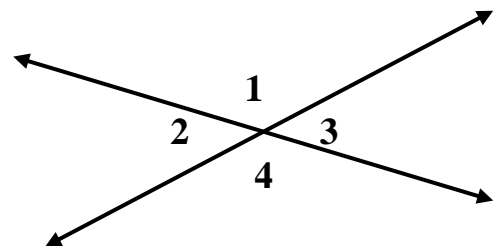
For Questions 13 and 14, refer the figure at the right.

- 13. a) Name the angle pair formed by  $\angle 1$  and  $\angle 3$ . \_\_\_\_\_
- b) If  $m\angle 1 = 4x + 2$  and  $m\angle 3 = 2x - 5$ , find x.



c) Find  $m\angle 1$  \_\_\_\_\_. Find  $m\angle 3$  \_\_\_\_\_

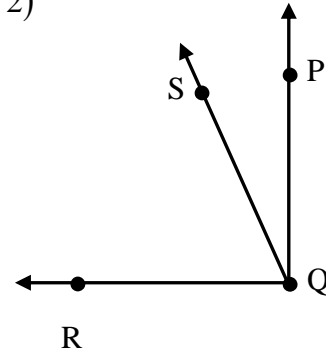
- 14. a) Name the angle pair formed by  $\angle 2$  and  $\angle 3$ . \_\_\_\_\_
- b) If  $m\angle 2 = 7x - 8$  and  $m\angle 3 = 5x + 14$ , find x.



c) Find  $m\angle 2$  \_\_\_\_\_. Find  $m\angle 3$  \_\_\_\_\_

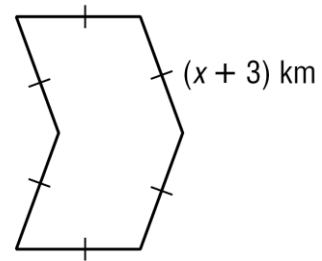
15. Suppose  $\overrightarrow{QP} \perp \overrightarrow{QR}$ ,  $m\angle PQS = (3x)^\circ$  and  $m\angle SQR = (8x + 2)^\circ$

- a) Find  $x$ . \_\_\_\_\_
- b) Find  $m\angle PQS$ . \_\_\_\_\_
- c) Find  $m\angle SQR$ . \_\_\_\_\_

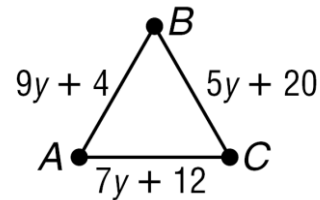


For Questions 16 and 17, use the figure at the right.

- 16. Which describes this figure?
  - A. hexagon, concave, not regular
  - B. pentagon, concave, regular
  - C. hexagon, convex, not regular
  - D. not a polygon
- 17. What is  $x$  for a perimeter of 108 kilometers?

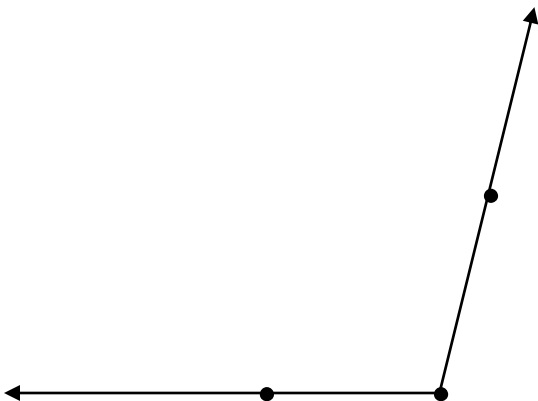


18. For what value of  $y$  is  $\triangle ABC$  a regular triangle?



19. Label the angle below  $\angle AXB$ .

Construct an **ANGLE BISECTOR** and label it  $\overrightarrow{XR}$ .



20. Label the segment below  $\overline{VM}$ .

Construct a **PERPENDICULAR BISECTOR**.

