

4. A circle has an area of 176 sq. cm. What is the circumference?

5. Write true or false.

- _____ a) If two angles are adjacent, then they are equal.
- _____ b) The supplement of a 30° angle is a 150° angle.
- _____ c) The complement of an 80° angle is a 100° angle.
- _____ d) Vertical angles are always supplementary angles.

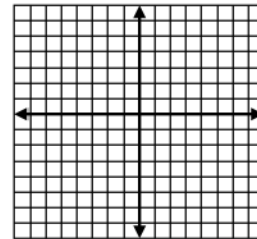
6. Given: $A(1, 3)$ and $B(5, -3)$ are two points in a plane. Find:

a. Slope of \overline{AB}

b. Equation of a line parallel to \overleftrightarrow{AB}

c. Coordinates of the midpoint of \overline{AB}

d. Length of \overline{AB} (AB)



e. What is the equation of \overleftrightarrow{AB} in point-slope form. (Point-slope form is $y - y_1 = m(x - x_1)$)

f. Equation of \overleftrightarrow{AB} in slope-intercept form.

g. Equation of **perpendicular bisector** of \overline{AB} in slope-intercept form.

7. Identify the following pairs of angles as corresponding, vertical, alternate interior, alternate exterior, or same side interior. If no relationship, write none. Use the diagram below.

a. $\angle 2$ and $\angle 7$

b. $\angle 10$ and $\angle 12$

c. $\angle 2$ and $\angle 3$

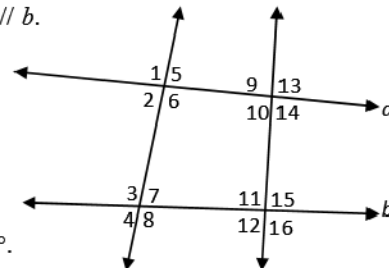
8. Use the figure to the right to answer these questions. Assume $a \parallel b$.

a. If $\angle 7 = \angle 8$, then $\angle 6 =$ _____ $^\circ$.

b. If $\angle 2 = 58^\circ$, then $\angle 4 =$ _____ $^\circ$.

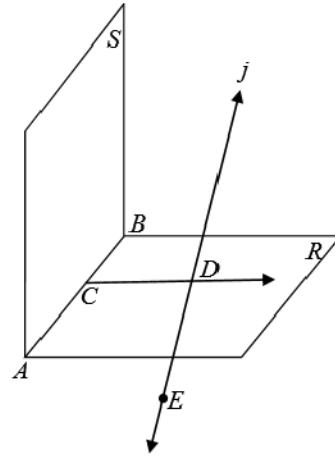
c. If $\angle 6 = 11x$ and $\angle 8 = 12x - 4$, then $x =$ _____ $^\circ$.

d. If $\angle 4 = 19x + 1$ and $\angle 5 = 15x + 13$, then $m\angle 4 =$ _____ $^\circ$.



9. Use the diagram on the right to answer these questions.

- Name the intersection of planes R and S. _____
- Name three collinear points. _____
- How many planes contain line j and \overrightarrow{CD} ? _____
- Name four noncoplanar points. _____
- Name the intersection of j and plane R. _____
- Name the ray opposite of \overrightarrow{CB} . _____
- If \overrightarrow{CD} is a bisector of \overline{AB} , then $AC = \underline{\hspace{1cm}}$ and $AC = \frac{1}{2}\underline{\hspace{1cm}}$.
- How many planes contain points A , B , and C ? _____



10. If t , $5t$, and $6t$ are the measures of the interior angles of a triangle, find the value of t .

11. Find the point of intersection of these two lines. (Solve the system of equations.)

$$2x + 3y = -11$$

$$-5x + y = -15$$

12. Solve the following for x using the quadratic formula.

$$2x^2 + 10x + 3 = 0$$

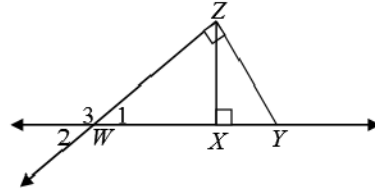
13. Write (a) the converse, (b) the inverse, and (c) the contrapositive of the following statement.

If $\angle 1$ and $\angle 2$ are right angles, then $\angle 1 = \angle 2$.

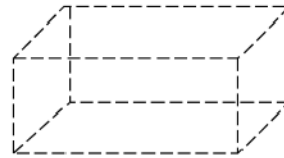
- _____
- _____
- _____

14. Find the measure of each angle if $\angle 1$ and $\angle WZX$ are complements, $\angle 1$ and $\angle XYZ$ are complements, and $\angle XZY = 40^\circ$.

- | | |
|-------------------|-------------------|
| a. $\angle WZX =$ | b. $\angle 1 =$ |
| c. $\angle 2 =$ | d. $\angle 3 =$ |
| e. $\angle ZYX =$ | f. $\angle WXZ =$ |



15. Using the room as a model, make a sketch of skew lines.

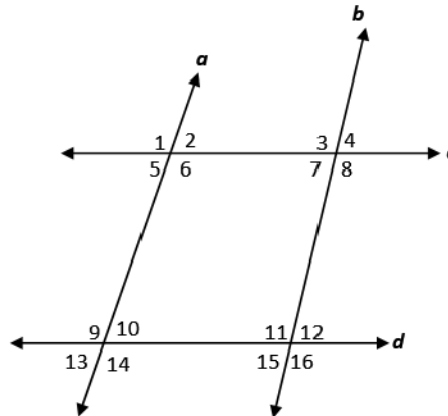


For problems 16 - 18. Determine which lines, if any, are parallel given the listed information. Explain your answer. Consider each problem independently

16. $\angle 10$ and $\angle 11$ are supplementary

17. $\angle 1 \cong \angle 11$

18. $\angle 1 \cong \angle 14$



You are responsible for Chapter 1-5, including congruency, proofs, and constructions.

STUDY CHAPTER TESTS!!!!