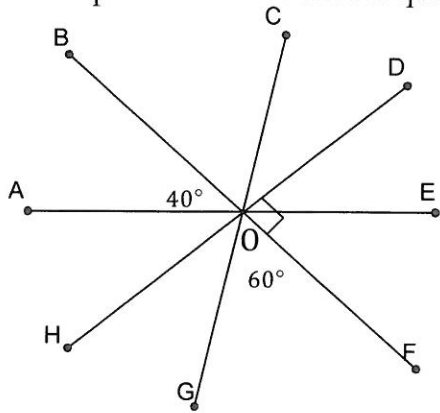


Unit 3 Geometry Review

Use the picture below to answer questions 1& 2.

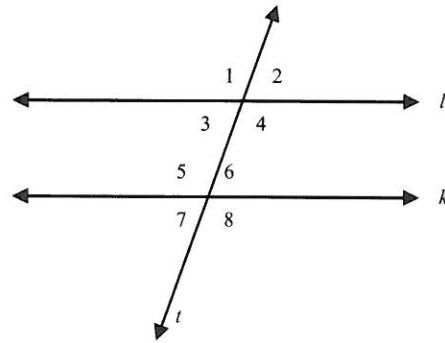


1. $m\angle GOE =$ _____

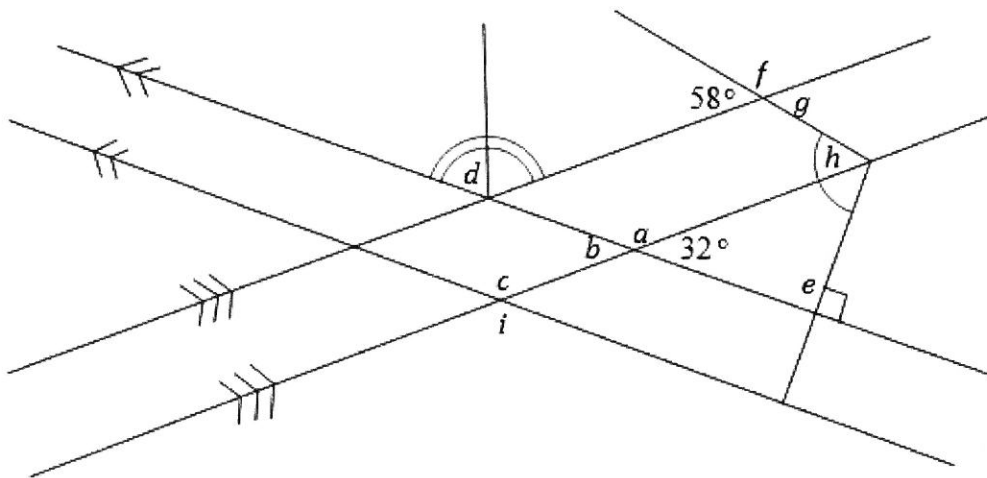
2. $m\angle EOD =$ _____

From the figure, label the:

3. Corresponding Angles
4. Alternate Interior Angles
5. Consecutive Interior Angles
6. Alternate Exterior Angles

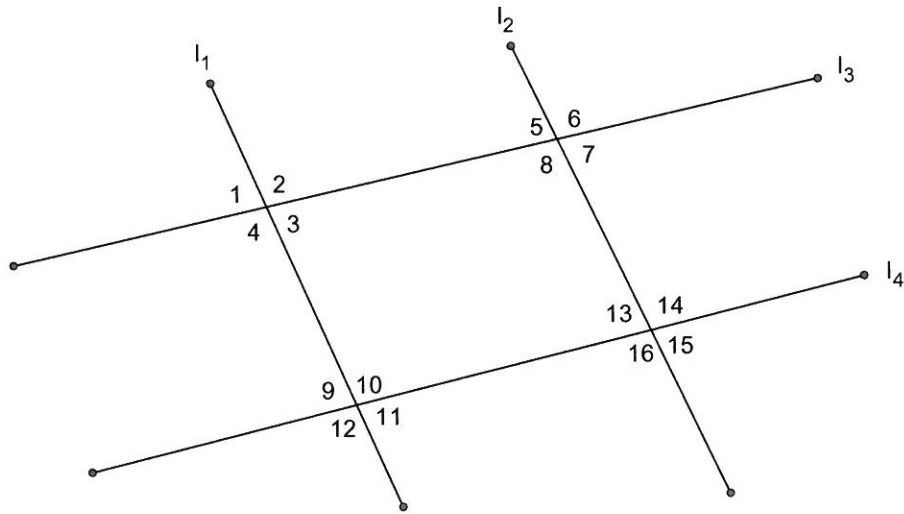


7. Find the measure of each missing angle.



$a =$ _____ $b =$ _____ $c =$ _____ $d =$ _____ $e =$ _____

$f =$ _____ $g =$ _____ $h =$ _____ $i =$ _____



Using the picture above and the information given to decide if the specified lines are parallel.

8. l_1 and l_2

$$m\angle 1 = 4x + 30$$

$$m\angle 3 = 6x - 10$$

$$m\angle 5 = 3y + 30$$

$$m\angle 8 = 2y - 50$$

9. l_3 and l_4

$$m\angle 5 = 5x + 5$$

$$m\angle 6 = 4x + 40$$

$$m\angle 14 = 7y + 30$$

$$m\angle 16 = 5y + 50$$

Solve the system of equations

10. $5x + 7y = 77$

$$5x + 3y = 53$$

11. $9x + 3y = 2$

$$-9x - y = 0$$

Identify each statement as true or false for each of the following.

12. If corresponding angles are congruent, then the two lines cut by the transversal are parallel.

13. If lines are parallel and cut by a transversal, then alternate exterior angles are congruent.

14. A linear pair of angles are complementary.

15. Vertical angles are congruent.

16. Consecutive interior angles always add up to 180° .

Write an equation of the line passing through the given point that is parallel to the given line.

17. $A(3, -4), y = -x + 8$

18. $A(-6, 5), y = \frac{1}{2}x - 7$

19. $A(2, 0), y = 3x - 5$

20. $A(3, -1), y = \frac{1}{3}x + 10$

Write an equation of the line passing through the given point that is perpendicular to the given line.

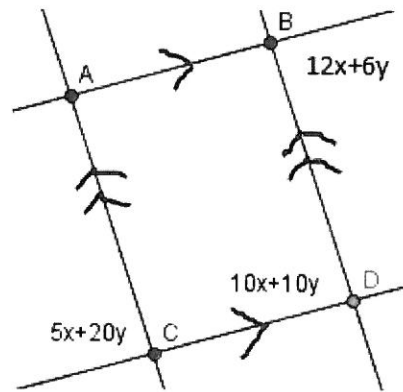
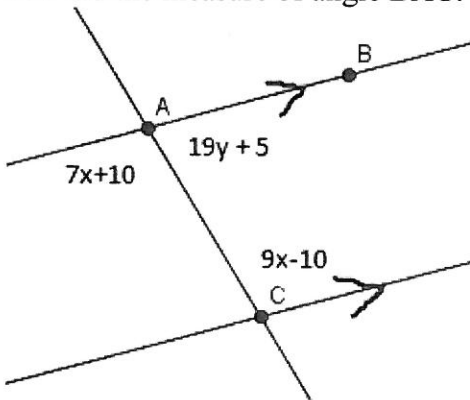
21. $A(6, -1), y = -2x + 8$

22. $A(0, 3), y = -\frac{1}{2}x - 6$

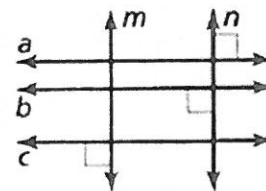
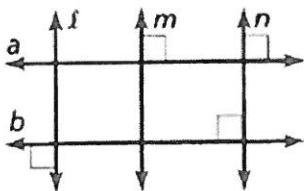
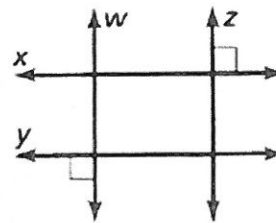
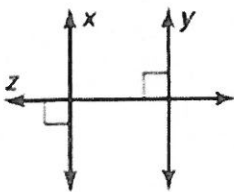
23. $A(8, 2), y = 4x - 7$

24. $A(-1, 5), y = \frac{1}{7}x + 4$

25. Find the measure of angle BAC.



26. Determine which lines, if any, must be parallel. Explain your reasoning.



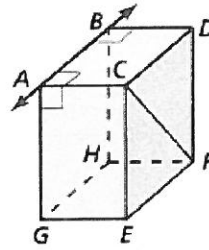
27. Think of each segment in the figure as part of a line.

a. Which line(s) appear perpendicular to \overleftrightarrow{AB} ?

b. Which line(s) appear parallel to \overleftrightarrow{AB} ?

c. Which line(s) appear skew to \overleftrightarrow{AB} ?

d. Which plane(s) appear parallel to plane ABC ?



28. Write the equation of the perpendicular bisector of segment AB where $A(-6, 2)$ and $B(8, 10)$.

29. Write the equation of the perpendicular bisector of segment CD where $C(11, 0)$ and $D(-2, 4)$.

30. Find the distance between point C and segment AB .

