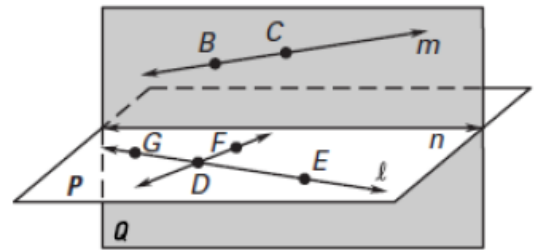


Show all work for full credit.

1. Use the diagram at the right.

- a. Name three collinear points.
- b. Give three names for the line containing point B.
- c. Name a line that is coplanar with Line m .
- d. Name a point that is not collinear with point E but that is coplanar with point E.
- e. Give the intersection of Plane P and Plane Q.
- f. Give another name for \overrightarrow{EG} .



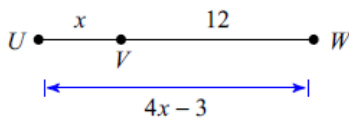
2. Let D be between E and F. Use the Segment Addition Postulate to solve for y . Then find the lengths of ED and DF.

$$ED = 4y + 8$$

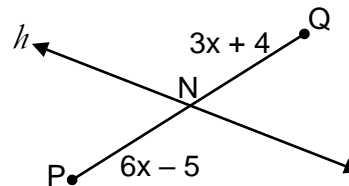
$$DF = 2y + 16$$

$$EF = 18$$

3. Solve for x . Then find UW



4. Given line h bisects \overline{PQ} , find PQ



Find the midpoint between the two given points.

5. (-12, 9) and (4, 23)
6. (7, -5) and (3, -8)

Find the other endpoint of the line segment with the given endpoint and midpoint (M).

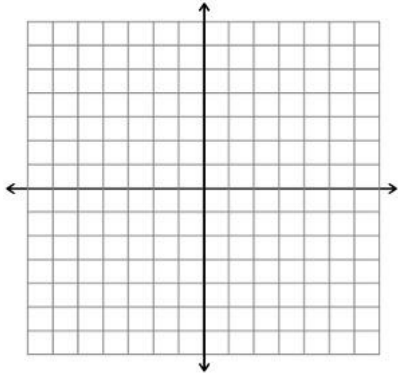
7. P(8, -5) and M(-2, -6)
8. H(-9, -7) and M(10, 2)

Find the distance between each pair of points. You may leave the answers as radicals if needed.

9. (-1, 6) and (3, 9)
10. (-7, 8) and (-5, 3)
11. (4, 7) and (-4, -5)

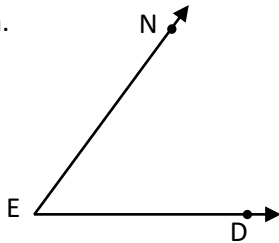
12. Plot the points S, T, and U. Give the lengths of all three sides, then find the perimeter of $\triangle STU$.

S (-4, -2), T (-7, 3) and U (2, 3)

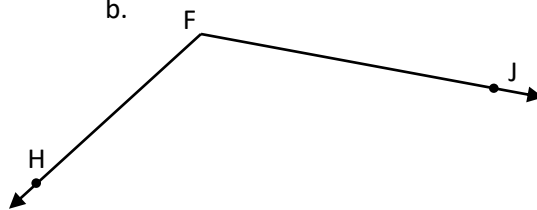


13. Give three names for the angle, and classify the angle as acute, right, obtuse, or straight.

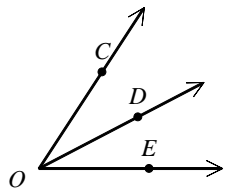
a.



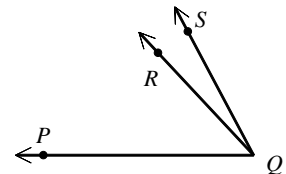
b.



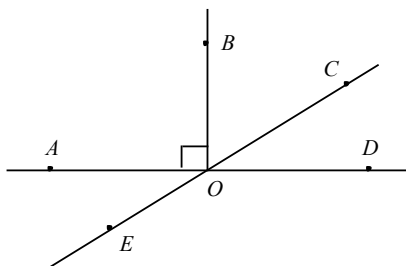
14. If $m\angle DOE = 26^\circ$ and $m\angle COD = 29^\circ$, then what is the measure of $\angle COE$?



15. $m\angle SQR = (2x+5)^\circ$ and $m\angle PQR = (10x-3)^\circ$ and $m\angle SQP = 62^\circ$. Find $m\angle SQR$ and $m\angle PQR$.

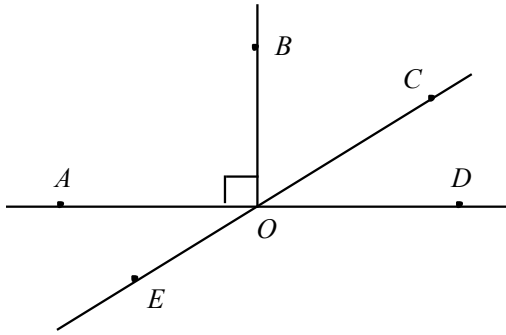


16. If \overline{CO} bisects $\angle BOD$, what is the measure of $\angle COD$?



17. Given $\angle 1$ and $\angle 2$ are congruent, $m\angle 1 = 73^\circ$, and the $m\angle 2 = 6x + 7$. Solve for x.

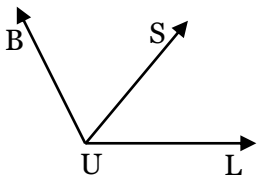
18. Solve for x and y if the $m\angle AOE = 2x + 25$, the $m\angle EOD = 3y + 11$, and the $m\angle DOC = 5x - 11$.



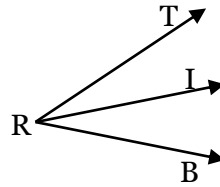
18. $x =$ _____

$y =$ _____

19. \overrightarrow{US} bisects $\angle BUL$, $m\angle BUS = 2x + 10$, and $m\angle SUL = 3x - 18$. Find $m\angle BUL$.



20. $m\angle TRI = 3x - 5$, $m\angle IRB = x + 27$, and $m\angle TRB = 86$. Does \overrightarrow{RI} bisect $\angle TRB$?



21. $\angle 1$ is the supplement of $\angle 7$, and $m\angle 1 = 24^\circ$. Find $m\angle 7$.

22. $\angle ABC$ and $\angle WXY$ are complementary angles. If $m\angle ABC = 2x - 5$ and $m\angle WXY = 3x + 10$, then find the measures of $\angle ABC$ and $\angle WXY$.

23. Use the diagram to decide whether each of the following statements are TRUE or FALSE

a. $m\angle FOB = 45^\circ$ _____

b. $m\angle DOC = 180^\circ$ _____

c. $\overline{AO} \cong \overline{OB}$ _____

d. $\angle AOC \cong \angle BOC$ _____

e. Points A, E, and F are collinear _____

f. $m\angle FOC = 50^\circ$ _____

g. $\angle COF$ and $\angle BOF$ are complementary _____

h. $\angle 1$ and $\angle 2$ are vertical angles _____

