

Chapter 1 – Review

These are the terms that you should know for the upcoming test

- | | | | | |
|------------------------|----------------------|---------------------|------------------|------------------|
| • Point | • Line | • Plane | • Collinear | • Coplanar |
| • Space | • Line Segment | • Ray | • Angle | • Degrees |
| • Congruent | • Counterexample | • Right Angle | • Acute Angle | • Obtuse Angle |
| • Midpoint | • Angle Bisector | • Parallel | • Perpendicular | • Complementary |
| • Supplementary | • Vertical Angles | • Linear Pair | • Polygon | • Convex |
| • Concave | • Triangle | • Quadrilateral | • Pentagon | • Hexagon (etc.) |
| • Consecutive Vertices | • Consecutive Angles | • Consecutive Sides | • Perimeter | • Diagonal |
| • Equilateral | • Equiangular | • Regular Polygon | • Right Triangle | • Acute Triangle |
| • Obtuse Triangle | • Scalene | • Isosceles | • Median | • Altitude |

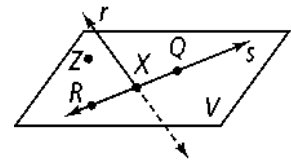
Use the figure at the right for #1–4. Note that line r pierces the plane at X . It is not coplanar with V .

1. What are two other ways to name \overleftrightarrow{QX} ?

2. What are two other ways to name plane V ?

3. Name three collinear points.

4. Name four coplanar points.



For # 5–9, determine whether each statement is *always* (A), *sometimes* (S), or *never* (N) true.

5. Plane ABC and plane DEF are the same plane. _____

6. \overleftrightarrow{DE} and \overleftrightarrow{DF} are the same line. _____

7. Plane XYZ does not contain point Z . _____

8. All the points of a line are coplanar. _____

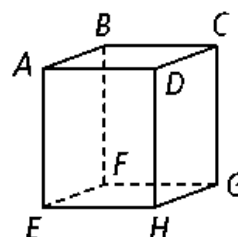
9. Two rays that share an endpoint form a line. _____

Name the intersection of each pair of planes. To start, identify the points that both planes contain.

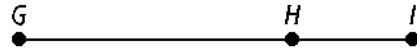
10. planes DCG and EFG

11. planes EFG and ADH

12. planes BCG and ABF



13. $GH = 7y + 3$, $HI = 3y - 5$, and $GI = 9y + 7$.

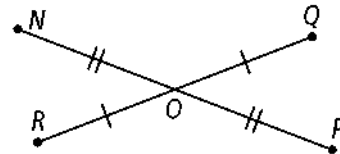


a. What is the value of y ?

b. Find GH , HI , and GI

14. On a number line, suppose point X has a coordinate of 5 and $XY = 10$. What are the possible coordinates of point Y ?

15. If $RO = 5x$ and $RQ = 12x - 20$, find the value of x .
Then find RO , OQ , and RQ .



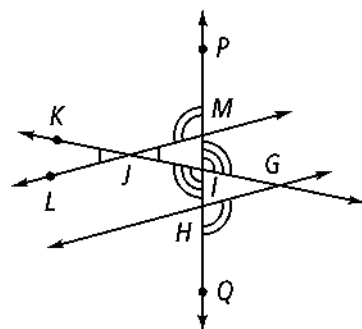
Use the diagram at the right. Complete each statement.

16. $\angle MIG \cong$ _____

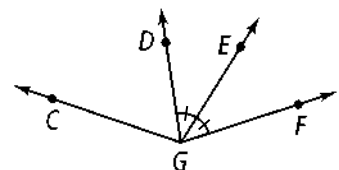
17. $\angle PMJ \cong$ _____

18. If $m\angle KJL = 30^\circ$, then $m\angle$ _____ $= 30^\circ$.

19. If $m\angle LMP = 100^\circ$, then $m\angle QHG =$ _____.



20. $m\angle CGD = 4x + 2$, $m\angle DGE = 3x - 5$, $m\angle EGF = 2x + 10$

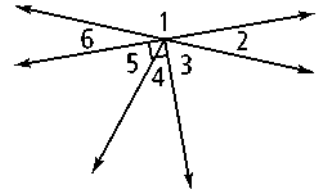


Use the diagram at the right. Is each statement true? Explain.

21. $\angle 5$ and $\angle 4$ are supplementary angles.

22. $\angle 6$ and $\angle 5$ are adjacent angles.

23. $\angle 1$ and $\angle 2$ are a linear pair.



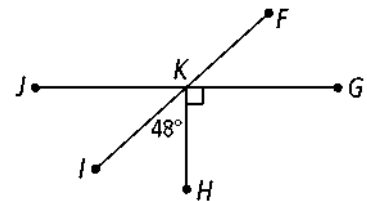
In the diagram at the right, $m\angle HKI = 48^\circ$. Find each of the following.

24. $m\angle HKJ$

25. $m\angle IKJ$

26. $m\angle FKG$

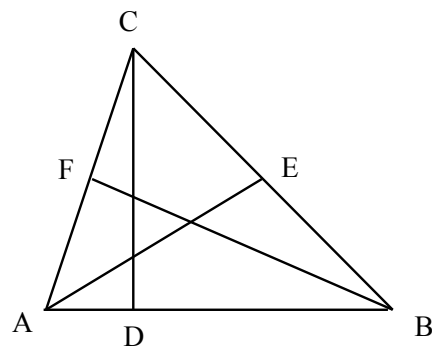
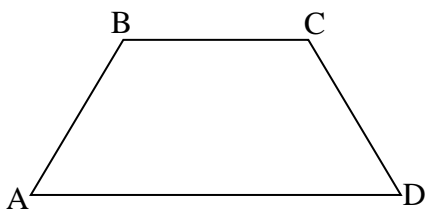
27. $m\angle FKH$



Mark the diagram to indicate the given information.

28. $AB = CD$; $m\angle A = m\angle D$; $m\angle B = m\angle C$

29. Point E is the midpoint of \overline{CB} , $\angle CDA$ is a right angle, and \overline{FB} is an angle bisector.



Match each statement with the correct letter on the left.

a. \overrightarrow{AB}

b. collinear

30. _____

The tool used to measure angles in degrees

c. right

d. coplanar

31. _____

A line segment with endpoints A and B

e. \overleftrightarrow{AB}

f. protractor

32. _____

Three or more points on a line

g. obtuse

h. \overline{BA}

33. _____

An angle whose measure is less than 90°

i. acute

j. \overline{AB}

34. _____

A ray starting at point A and passing through point B

k. \overline{AB}

l. parallel

SKETCH the following without the use of a geometric tool.

35. Equiangular quadrilateral QUAD with $QU \neq QD$

36. Pentagon HAWKS with $HA = AW$ and $m\angle HAW = 90^\circ$.

TRUE or FALSE

37. If two planes do not intersect, then they are skew.

38. If two lines are perpendicular to the same line, then they are parallel.

Sketch a triangle that fits the name. If impossible, write *not possible*.

39. Obtuse Isosceles Triangle

40. Scalene isosceles triangle