

Geometry
Chapter 1 Study Guide

Name: _____

Date: _____ Period: _____

1.1 Identify, name, and draw points, lines, segments, rays & planes. Apply basic facts about points, lines & planes.

Rate Your Understanding: 1 (Yikes!) 2 3 4 5 (I got this!)

1) Use the figure below to name the following figures:

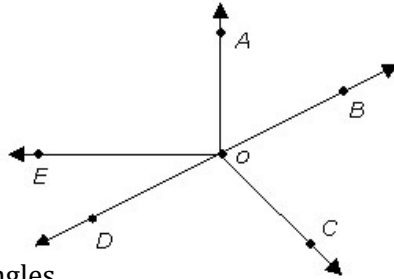
_____ a) A line

_____ b) A ray

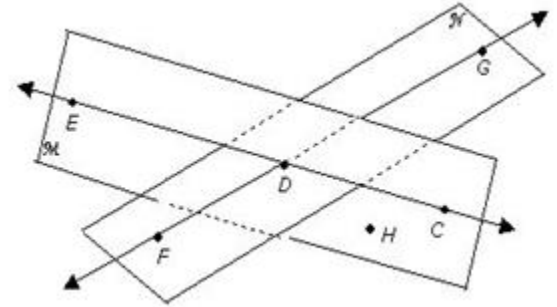
_____ c) Opposite rays

_____ d) Only adjacent angles

_____ e) Adjacent and linear pair angles



2) Identify the plane containing D, E, and C.



3) Circle Always, Sometimes, or Never. Draw a picture to support your answer.

If two planes cross, then they cross at a point.

1.2 Use length and midpoint of a segment to solve algebraic problems.

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4) Y is between X and Z, $XY = 5.8$ and $YZ = 12.4$.
Find XZ.

5) L is the midpoint of \overline{MN} , $ML = 2x + 7$,
and $LN = 3x - 3$. Find ML, LN, and MN.

6) Circle Always, Sometimes, or Never. Draw a picture to support your answer.

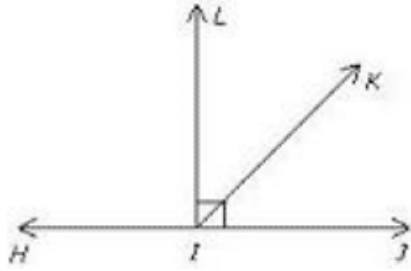
If I is the midpoint of \overline{MN} , then I, M, and N are collinear.

1.3 Name and classify angles. Find the measure of the angle using interior and angle bisector.

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7) Classify the following angles using the diagram below:

- a) $\angle LIJ$
- b) $\angle HIJ$
- c) $\angle KIL$



8) \overline{TV} bisects $\angle STU$, $m\angle STV = \left(\frac{1}{4}x + 8\right)^\circ$
and $m\angle UTV = (x + 2)^\circ$. Find $\angle STU$.

9) D is in the interior of angle BAC. $\angle BAD = x^2$, $\angle CAD = 4x$, and $\angle BAC = 12$. Find x.

1.4 Identify adjacent, vertical, complementary, and supplementary angles. Find measures of pairs of angles.

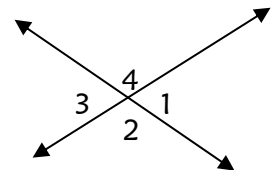
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10) $m\angle F = 109^\circ$. Find the measure of the supplement of $m\angle F$.

11) $m\angle K = (6x + 12)^\circ$. Write an expression for the measure of the complement of $\angle K$.

12) $m\angle ABC = (6x + 8)^\circ$ and $m\angle DEF = (12x - 8)^\circ$.
If $\angle ABC$ and $m\angle DEF$ are supplementary, find the measure of each angle.

13) If $m\angle 1 = 5x + 32$ and $m\angle 3 = 3x + 64$ find $m\angle 4$.



14) A supplement of an angle is 4 more than three times the complement of the angle. Find the measure of the complement of the angle.

1.6 Apply the midpoint and distance formulas.

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15) M is the midpoint of PQ. P is at (1, -1) and M is at (7, -3). Find the coord. of Q.

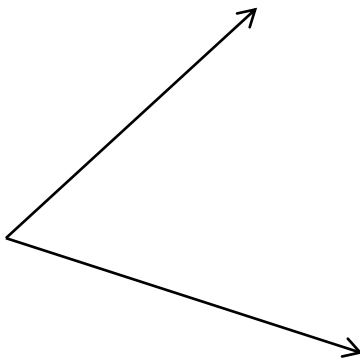
16) Find the distance of \overline{PQ} with endpoints P(1, -1) and Q(7, -3).

17) Find the midpoint of \overline{AB} when A (-4, -1) and B (6, 5).

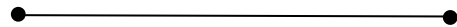
Constructions: Construct an angle bisector, perpendicular bisector and midpoint.

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18) Construct an angle bisector.



19) Construct a perpendicular bisector.



*Remember, completing the study guide is not enough practice!
Make sure to look over your notes, homework, and in-class assignments to prepare for the Chapter test!!!*