

Henry Ford Early College
H. Geometry: Unit 1 Review
Unit 1: Vocabulary Essentials and Angle Relationships
Chapter 1: Sections 1.3-1.6, 1.8

Directions: Match the following terms with their precise definitions.

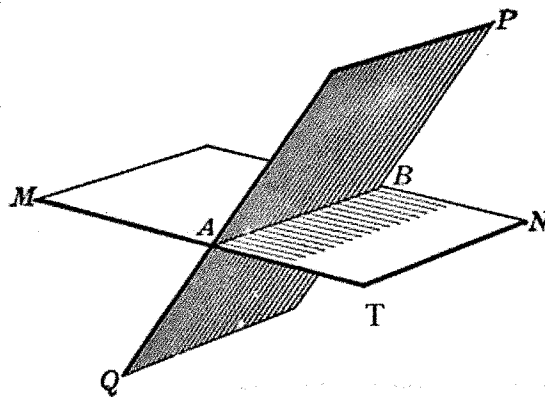
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|---------------------------------|--|
| 1. <u>B</u> line segment | A. Lines that are coplanar and do not intersect. |
| 2. <u>D</u> perpendicular lines | B. Part of a line consisting of 2 endpoints. |
| 3. <u>A</u> parallel lines | C. Formed by 2 rays with the same endpoint. |
| 4. <u>C</u> angle | D. 2 Lines that intersect at a 90 degree. |

Directions: Identify the following from the diagram.

5) 3 Collinear points M, A, T

6) 3 coplanar points M, A, T

7) a plane Plane MAT



Directions: Identify the following from the diagram. Make sure you have the appropriate geometric markings.

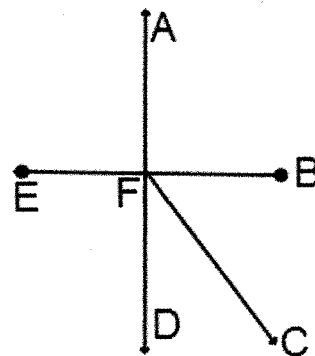
8) Line EB

9) Segment FC

10) Ray FC

11) Angle DFC

12) Opposite rays FE, FB

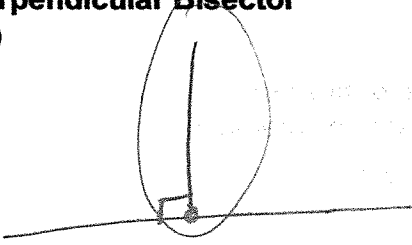
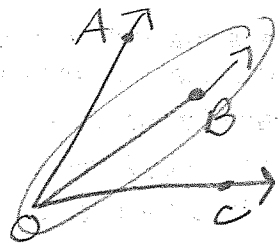

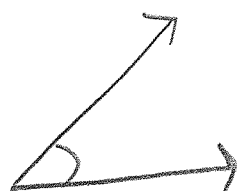

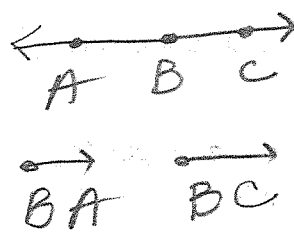


13.) Find the distance between points $P(8, 2)$ and $Q(3, 8)$ to the nearest tenth.

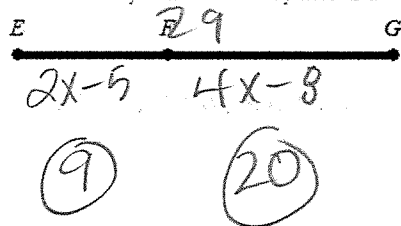
$$d = \sqrt{(8-3)^2 + (2-8)^2}$$

$$= \sqrt{25 + 36} = 7.8$$

Directions: Draw and label the following correctly.

Perpendicular Bisector 14) 	Angle Bisector 15) 	Obtuse Angle 16) 
Acute Angle 17) 	Point 18) 	Opposite Rays 19) 

20.) If $EF = 2x - 5$, $FG = 4x - 8$, and $EG = 29$, find the values of x , EF , and FG . The drawing is not to scale.



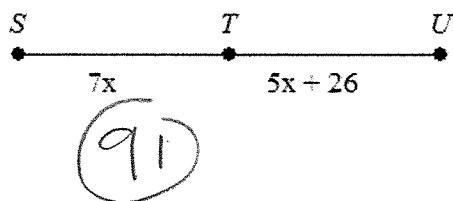
$$2x - 5 + 4x - 8 = 29$$

$$6x - 13 = 29$$

$$6x = 42$$

$$x = 7$$

21.) If T is the midpoint of SU , find the values of x and ST . The diagram is not to scale.



$$7x = 5x + 26$$

$$2x = 26$$

$$x = 13$$

7

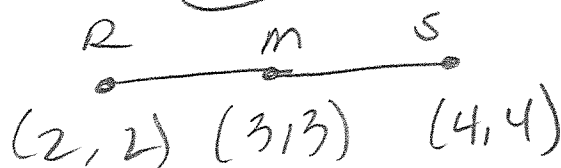
22.) $M(3, 3)$ is the midpoint of RS . The coordinates of S are $(4, 4)$. What are the coordinates of R ?

a. $(6, 6)$

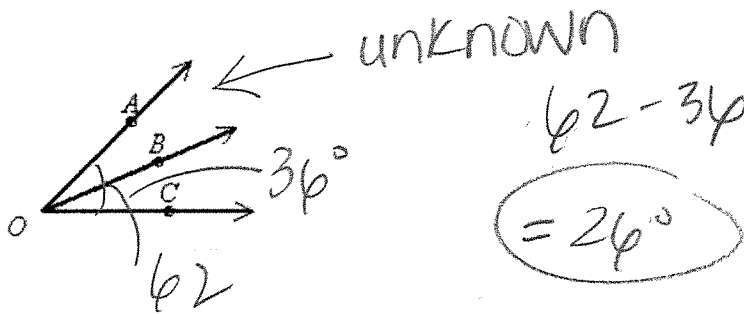
b. $(2, 2)$

c. $(3.5, 3.5)$

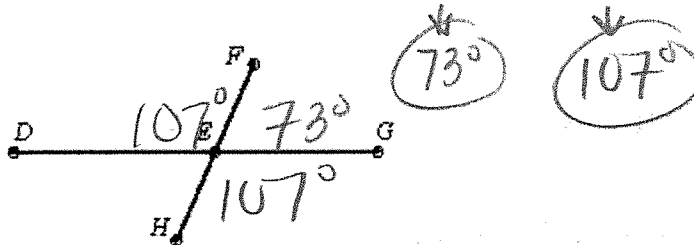
d. $(5, 5)$



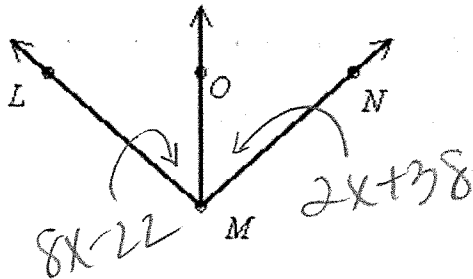
- 23.) If $m\angle BOC = 36$ and $m\angle AOC = 62$, then what is the measure of $\angle AOB$? The diagram is not to scale.



- 24.) If $m\angle DEF = 107$, then what are $m\angle FEG$ and $m\angle HEG$? The diagram is not to scale.



- 25.) \overrightarrow{MO} bisects $\angle LMN$, $m\angle LMO = 8x - 22$, and $m\angle NMO = 2x + 38$. Solve for x and find $m\angle LMN$. The diagram is not to scale.



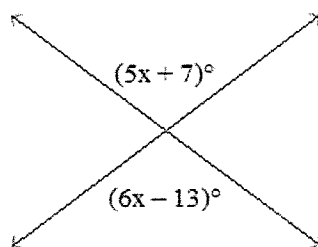
$$8x - 22 = 2x + 38$$

$$6x - 22 = 38$$

$$6x = 60$$

$$x = 10$$

- 26.) Find the value of x .



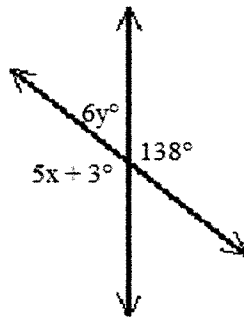
Drawing not to scale

$$5x + 7 = 6x - 13$$

$$7 = x - 13$$

$$x = 20$$

- 27.) Find the values of x and y .



Drawing not to scale

$$5x + 3 = 138$$

$$5x = 135$$

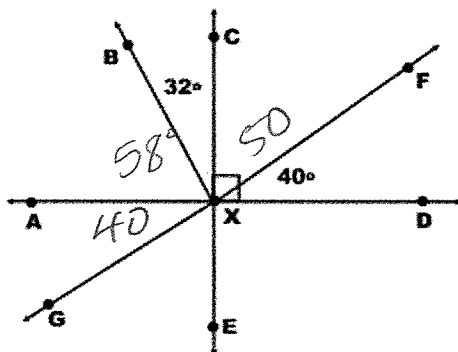
$$x = 27$$

$$138 + 6y = 180$$

$$6y = 42$$

$$y = 7$$

Use the diagram below for questions 28 – 33.



28. Name a right angle. $\angle CXD$

29. Name a pair of complementary angles. $\angle CXF$ and $\angle FXD$

30. Name a pair of vertical angles. $\angle GXA$ and $\angle DXF$

31. Name a pair of supplementary angles $\angle GXC$ and $\angle GXE$

32. Name a straight angle. $\angle GXF$

33. Find the measure of the angles below:

$$m\angle AXB = \underline{58^\circ}$$

$$m\angle CXF = \underline{50^\circ}$$

$$m\angle AXG = \underline{40^\circ}$$

$$m\angle EXD = \underline{90^\circ}$$

$$m\angle BXG = \underline{98^\circ}$$

$$m\angle BXF = \underline{82^\circ}$$