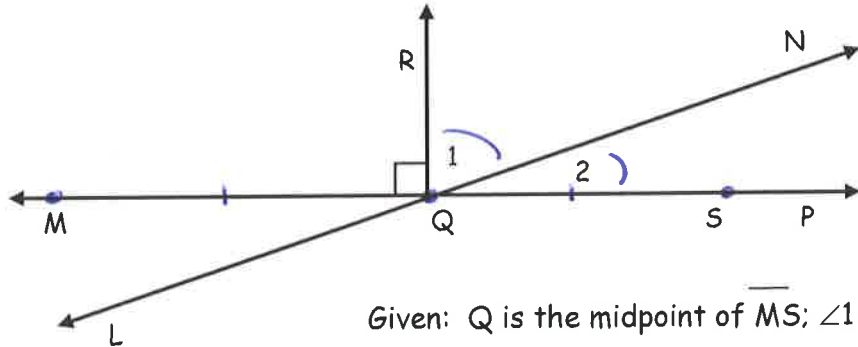


Station 1:

Diagram:



Given: Q is the midpoint of \overline{MS} ; $\angle 1 \cong \angle 2$

1. 3 collinear points: m, q, s
2. 3 non-collinear points: m, q, r
3. 2 congruent segments: $\overline{mq} \cong \overline{qs}$ (because Q is the midpoint of \overline{ms})
4. An angle bisector: \overrightarrow{QN}
5. Pair of \cong supp. angles: $\angle mqr \cong \angle rqs$ and $m\angle mqr + m\angle rqs = 180$
6. Linear pair: $\angle mql$ & $\angle lqs$
7. Right angle: $\angle mqr$
8. ^{Pair of} Adjacent angles: $\angle lqm$ & $\angle mqr$
9. Vertex of $\angle 1$: q
10. Ray opposite \overrightarrow{QN} : \overrightarrow{QL}
11. Pair of vertical angles: $\angle mql$ & $\angle nqp$
12. Rename $\angle 2$: $\angle nqp$
13. 3 angles that sum to 180: $\angle mqr, \angle rqn, \angle nqs$
14. Pair of complementary \angle 's: $\angle 1$ and $\angle 2$

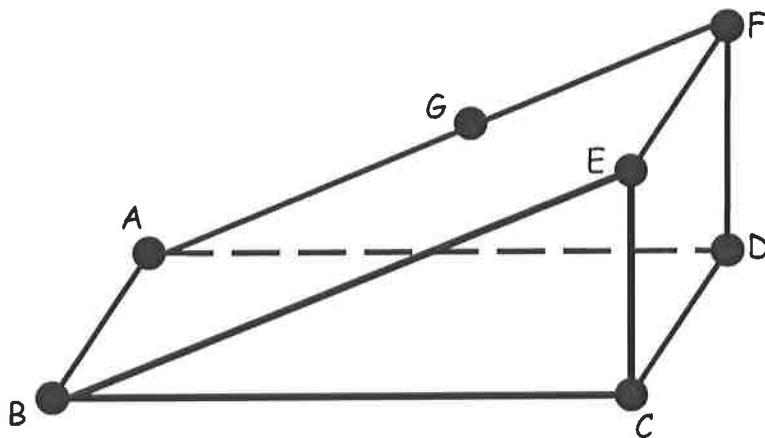
Remember: There may be more than one correct answer!
Be careful with notation! ☺

Geometry/Trig

Unit 1 Review - Stations Answer Sheet

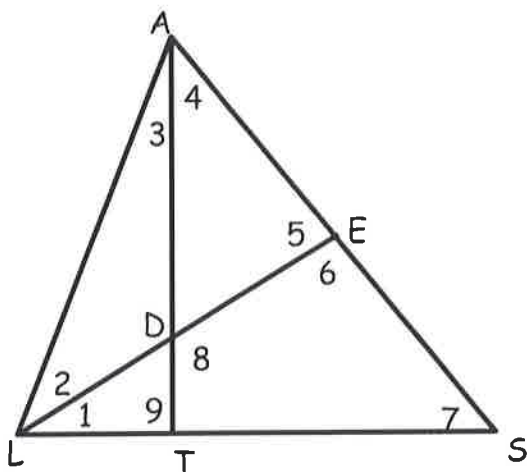
Station 2:

I. Diagram:



1. $\overleftrightarrow{BEC} \cap \text{ABCD}$ at \overleftrightarrow{BC}
2. a plane that contains \overleftrightarrow{DE} : DCEF
3. $\overleftrightarrow{AB} \cap \text{plane BCE}$ at: point B
4. 3 collinear points: A, G, E
5. 4 non-coplanar points: A, B, C, D
6. 3 points that are coplanar; but not collinear: A, B, C
7. A plane that contains \overleftrightarrow{AD} and point G: plane ADF
8. $\text{Plane ABCD} \cap \text{plane AFEB}$: \overleftrightarrow{AB}

II. Diagram:



Give another name for each angle.

1. $\angle AED \rightarrow \angle 5$
2. $\angle DLT \rightarrow \angle 1$
3. $\angle 3 \rightarrow \angle LAD$
4. $\angle 8 \rightarrow \angle TDE$

Fill in the blank.

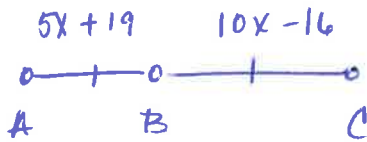
5. $m\angle 3 + m\angle 4 = m\angle LAE$
6. $m\angle 5 + m\angle 6 = 180$
7. If $\angle 1 \cong \angle 2$, then \overleftrightarrow{LD} bisects $\angle ALT$.

Geometry/Trig

Unit 1 Review - Stations Answer Sheet

Stations 3: Please draw the diagram for each problem and show all work!!

I.



$$5x + 19 = 10x - 16$$

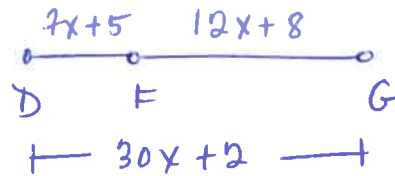
$$-5x = -35$$

$$x = 7$$

$$x = \underline{7} \quad AB = \underline{5(7) + 19} = \underline{54}$$

$$BC = \underline{10(7) - 16} = \underline{54} \quad AC = \underline{54 + 54} = \underline{108}$$

II.



$$\underline{7x + 5} + \underline{12x + 8} = \underline{30x + 2}$$

$$19x + 13 = 30x + 2$$

$$-11x = -11$$

$$x = 1$$

$$x = \underline{1}$$

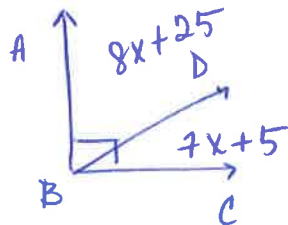
$$DF = \underline{7(1) + 5} = \underline{12}$$

$$FG = \underline{12(1) + 8} = \underline{20}$$

$$DG = \underline{30(1) + 2} = \underline{32}$$

check $30 + 12 = 32 \checkmark$

III.



$$8x + 25 + 7x + 5 = 90$$

$$15x + 30 = 90$$

$$15x = 60$$

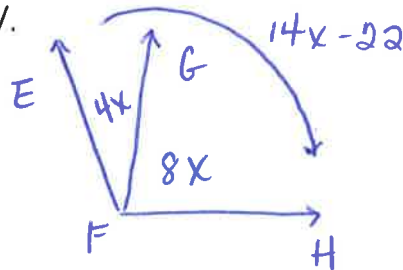
$$x = 4$$

$$x = \underline{4} \quad m\angle ABD = \underline{8(4) + 25} = \underline{57}$$

$$m\angle DBC = \underline{7(4) + 5} = \underline{33} \quad m\angle ABC = \underline{33 + 57} = \underline{90}$$

check:
 $33 + 57 = 90 \checkmark$

IV.



$$4x + 8x = 14x - 22$$

$$12x = 14x - 22$$

$$-2x = -22$$

$$x = 11$$

$$x = \underline{11} \quad m\angle EFG = \underline{4(11)} = \underline{44}$$

$$m\angle GFH = \underline{8(11)} = \underline{88} \quad m\angle EFH = \underline{14(11) - 22} = \underline{132}$$

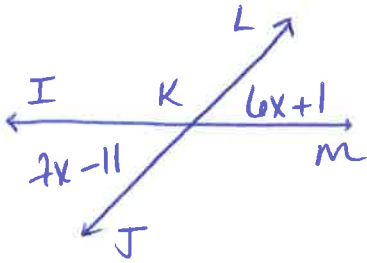
check:
 $44 + 88 = 132 \checkmark$

Geometry/Trig

Unit 1 Review - Stations Answer Sheet

Stations 4: Please draw the diagram for each problem and show all work!!

I.



$$6x+1 = 7x-11$$

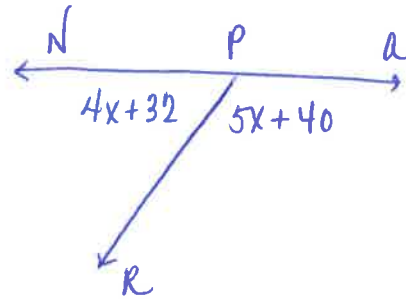
$$12 = x$$

$$x = \underline{12} \qquad m\angle IKL = \underline{107}$$

$$m\angle LKM = \underline{73} \qquad m\angle MKJ = \underline{107}$$

$$m\angle JKI = \underline{73} \qquad m\angle IKM = \underline{180}$$

II.



$$4x+32 + 5x+40 = 180$$

$$9x + 72 = 180$$

$$9x = 108$$

$$x = 12$$

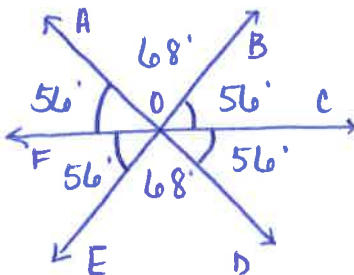
$$x = \underline{12} \qquad m\angle NPR = \underline{80}$$

$$m\angle RPQ = \underline{100} \qquad m\angle NPQ = \underline{180}$$

check: $100 + 80 = 180$ ✓

III.

Given: $m\angle BOD = 112$; \overrightarrow{OF} bisects $\angle AOE$



$$m\angle FOE = \underline{56} \qquad m\angle COD = \underline{56}$$

$$m\angle AOC = \underline{124} \qquad m\angle AOB = \underline{68}$$

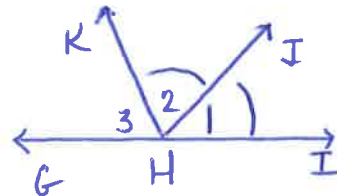
$$m\angle COE = \underline{124} \qquad m\angle FOB = \underline{124}$$

IV.

Given: \overrightarrow{HJ} bisects $\angle KHI$

$$m\angle 2 = 4x+12$$

$$m\angle 3 = 7x+24$$



$$m\angle 1 + m\angle 2 + m\angle 3 = 180$$

$$4x+12 + 4x+12 + 7x+24 = 180$$

$$15x+48 = 180$$

$$x = 8.8$$

$$x = \underline{8.8} \qquad m\angle 1 = \underline{47.2}$$

$$m\angle 2 = \underline{47.2} \qquad m\angle 3 = \underline{85.6}$$

$$m\angle GHI = \underline{180} \qquad m\angle GHJ = \underline{132.8}$$

check: $47.2 + 85.6 = 132.8$

Geometry/Trig

Unit 1 Review - Stations Answer Sheet

Directions: Answer each question below.

1. What are points that lie on the same line called? collinear
2. What are points that lie on the same plane called? coplanar
3. What is the set of all points called? space
4. A segment bisector is a line, segment or ray that intersects a Segment at its midpoint.
5. An angle bisector is a ray that divides an angle into two congruent and adjacent angles.
6. Adjacent angles must share a vertex, share a common side, and they cannot share any interior points (they cannot overlap).
7. Through one point you can draw (zero, one, two, an infinite amount of) lines.
8. Through two points you can draw (zero, one, two, an infinite amount of) lines.
9. Through any three collinear points you can draw (zero, one, two, infinite) planes.
10. Through any three noncollinear points you can draw (zero, one, two, infinite) planes.

Directions: Answer each question as TRUE or FALSE.

- TRUE 1. If two lines intersect, then the lines will lie in the same plane.
- TRUE 2. If two points lie in a plane, then the line that contains them will lie in the same plane.
- FALSE 3. Through a line and a point not on that line you can draw an infinite number of planes. ONE
- False 4. If two lines intersect, then their intersection is a line. Point
- False 5. If two planes intersect, then their intersection is a point. Line
- False 6. If two angles are complementary, then they are always adjacent. not always
- True 7. If two angles form a linear pair, then they are always adjacent. $\begin{matrix} \swarrow 20^\circ \\ \searrow 70^\circ \end{matrix}$
Complements,
not adjacent
- False 8. A point is one-dimensional. (no dimension)
- True 9. A plane is two-dimensional.
- False 10. Coplanar points are also collinear. not always →

