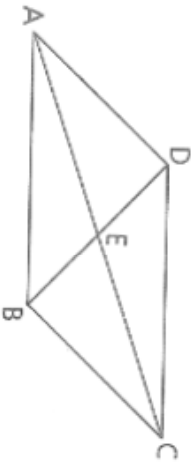


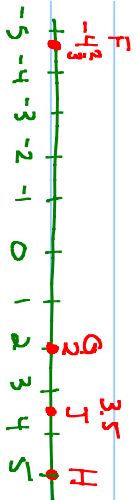
1.1 Q&A

Period 5

- 5 a $\overrightarrow{AB} \cap \overrightarrow{BC} = \underline{\hspace{1cm}} ?$
- b $\overrightarrow{EC} \cup \overrightarrow{EA} = \underline{\hspace{1cm}} ?$
- c $\overrightarrow{AC} \cap \overrightarrow{DB} = \underline{\hspace{1cm}} ?$
- d $\overrightarrow{DC} \cap \overrightarrow{AB} = \underline{\hspace{1cm}} ?$
- e $\overrightarrow{AC} \cap \overrightarrow{EC} = \underline{\hspace{1cm}} ?$
- f $\overrightarrow{BA} \cup \overrightarrow{BC} = \underline{\hspace{1cm}} ?$
- g $\overrightarrow{EC} \cup \overrightarrow{CB} \cup \overrightarrow{BE} = \underline{\hspace{1cm}} ?$



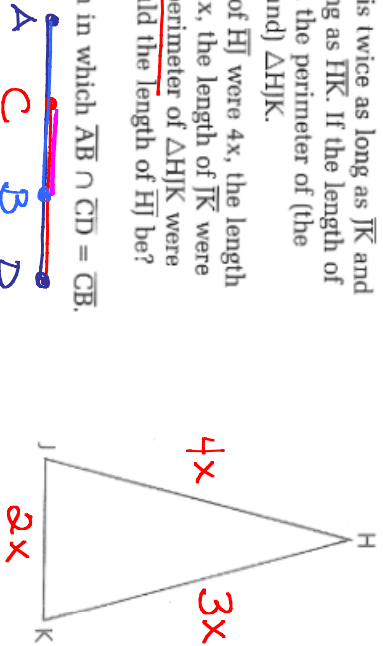
- 9 Draw a number line and label points F, G, H, and J with the coordinates $-4\frac{2}{3}$, 2, 5, and 3.5 respectively. One of these points is the midpoint (the halfway point) between two others. Which is it?



d $\frac{a}{b}$ $\{ \}$ or \emptyset
empty set or null set

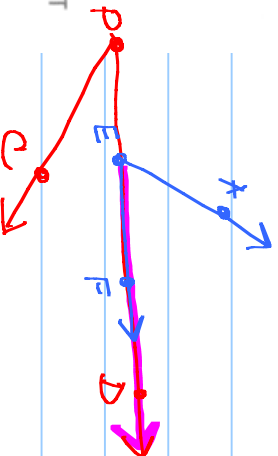
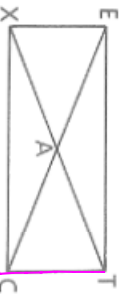
Problem Set B

- 11 a In $\triangle HJK$, \overline{HJ} is twice as long as \overline{JK} and exactly as long as \overline{HK} . If the length of \overline{HJ} is 15, find the perimeter of (the distance around) $\triangle HJK$.
- b If the length of \overline{HJ} were $4x$, the length of \overline{HK} were $3x$, the length of \overline{JK} were $2x$, and the perimeter of $\triangle HJK$ were 63, what would the length of \overline{HJ} be?



Problem Set C

- 12 Draw a diagram in which $\overline{AB} \cap \overline{CD} = \overline{CB}$.
- 13 Draw a diagram in which the intersection of $\angle AEF$ and $\angle DPC$ is \overline{ED} .
- 14 a What percentage of the triangles in the diagram have \overline{CT} as a side?
b What percentage have \overline{AC} as a side?

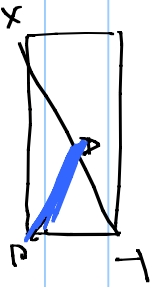


$9x = 63$
 $x = 7$
then $\overline{HJ} = 28$

14a: total $\Delta s = 8$

$$\begin{array}{ccc} \Delta XTC & \Delta ACT & 3/8 \rightarrow 37.5\% \\ \Delta ECT & & \end{array}$$

14b:



ΔACT
 ΔXAC

$$2/8 = 25\%$$

- 1.2: Measurement of Segments and Angles
- 1.2: 1, 2, 4-11, 13-18

Convert $87\frac{1}{2}^\circ$ to dms \rightarrow $\frac{1}{2} \cdot 60 = 30 \rightarrow 87^\circ 30'$

$$20\frac{4}{7}^\circ \text{ to dms } \rightarrow \frac{4}{7} \cdot 60 = 240/7 = 34.28571428571429$$

\leftarrow $34.28571428571429 \cdot 60 = 17.14285714285714$

$20^\circ 34' 17.14''$

$\frac{4}{7}$ degree	60 min
$\frac{4}{7}$ degree	1 degree

Convert $60^{\circ} 24'$ to d only

$$60 \frac{24}{60}^{\circ} = 60.4^{\circ}$$

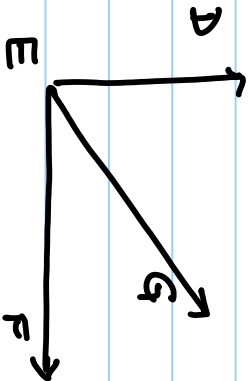
$$34^{\circ} 15' \rightarrow 34 \frac{15}{60}^{\circ} \rightarrow 34.25^{\circ}$$

Given:

* $G: \angle DEF$ $\text{adj} \angle$

$$m\angle DEG = 25^{\circ} 12' 10''$$

Find: $m\angle GEF$



$$m\angle DEF = 90^{\circ} - 25^{\circ} 12' 10''$$

$$\rightarrow 89^{\circ} 59' 60''$$

$$- m\angle DEG = - 25^{\circ} 12' 10''$$

$$\hline 64^{\circ} 47' 50''$$

$$m\angle GEF$$

$$* \quad 24^{\circ} 17' 38''$$

$$+ 12^{\circ} 34' 56''$$

$$\hline 36^{\circ} 51' 94''$$

$$+1 -60$$

60 sec = 1 min

$$\hline 36^{\circ} 52' 34''$$

$$8^{\circ} 0' 26''$$

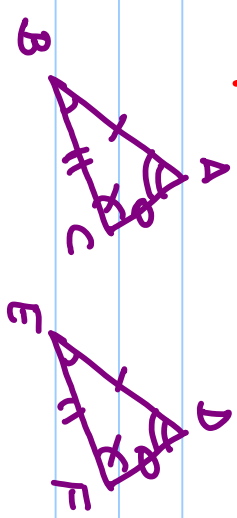
$$8^{\circ} 26''$$

\cong Congruent

\Rightarrow implies

$\cong \Rightarrow$ same size & shape

$$1+3 = 2+2$$

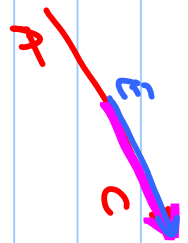


$$\underline{\triangle ABC} \cong \underline{\triangle DEF}$$

P7 Adv

5d-9, 12, 13, 14

$$d. \overline{DC} \cap \overline{AB} = \begin{matrix} D & C \\ \hline A & B \end{matrix} = \begin{matrix} \{ \} \\ \text{empty set} \end{matrix} \text{ or } \begin{matrix} \emptyset \\ \text{null set} \end{matrix}$$

$$5e. \overline{AC} \cap \overline{EC} = \begin{matrix} E \\ \hline A & C \end{matrix} = \overline{EC}$$


$$5f. \overline{BA} \cup \overline{BC} = \begin{matrix} \leftarrow A & B & \rightarrow \\ & & \nearrow C \end{matrix} = \angle ABC$$

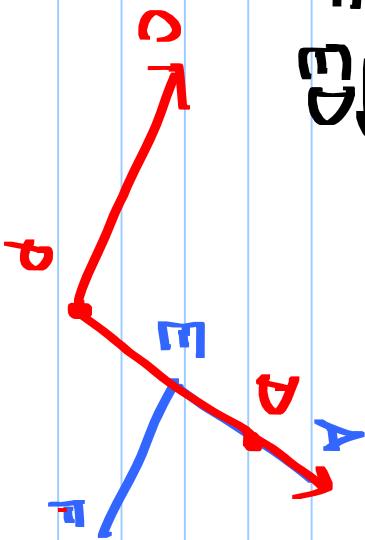
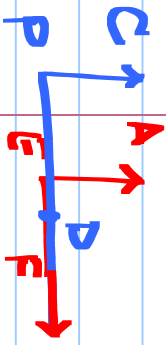
↑
vertex

$$5g. \overline{EC} \cup \overline{CB} \cup \overline{BE} \rightarrow \begin{matrix} E & & \\ / & & \backslash \\ B & & C \end{matrix} \rightarrow \triangle BEC$$

12. Draw dia. $\overline{AB} \cap \overline{CD} = \overline{CB}$



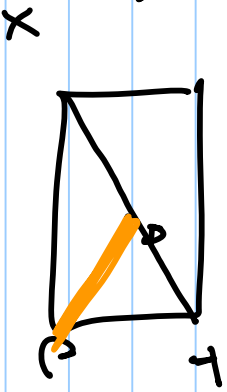
13. $\angle AEF \cap \angle DPC = \overrightarrow{ED}$



14. a. side \overline{CT}

$$\left\{ \begin{array}{l} \Delta ATC \\ \Delta XTC \\ \Delta ETC \end{array} \right\} \frac{3}{8} = 37.5\%$$

14b.

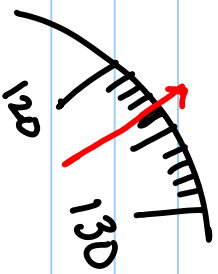


$$\left. \begin{array}{l} \Delta TAC \\ \Delta XAC \end{array} \right\} \frac{2}{8} = 25\%$$

1.2:

Ruler & protractor

top pg 10



1 degree = 60 min

1 min = 60 sec

Convert
 $87\frac{3}{8}$ → dms

$$87^{\circ} \left(\frac{1}{8} \cdot 60 \right)' = 87^{\circ} 30'$$

$$26\frac{3}{4}^{\circ} \rightarrow 26^{\circ} 45'$$

$$8\frac{3}{8}^{\circ} \rightarrow 8^{\circ} \left(\frac{3}{8} \cdot 60 \right)'$$

$$8^{\circ} 22.5'$$

$$8^{\circ} 22' (.5 * 60)''$$

$$8^{\circ} 22' 30''$$

D M S

Convert to dms

$$7 \frac{2}{3}^{\circ}$$

$$7^{\circ} \left(\frac{2}{3} \times 60 \right)'$$

$$7^{\circ} \quad 17.14285714285714'$$

$$7^{\circ} 17' \left(.1429 \times 60 \right)''$$

$$7^{\circ} 17' \quad 8.571428571428571''$$

$$7^{\circ} 17' 8.57''$$

$$42^{\circ} 8' 57'' \rightarrow \text{deg.}$$

$$42^{\circ} \quad 8 + \frac{57}{60}'$$

$$42^{\circ} \quad 8.95'$$

$$42 + \left(\frac{8.95}{60} \right)^{\circ}$$

$$42.149^{\circ}$$

$$8^{\circ} 26' 15''$$

$$\left(26 + \frac{15}{60} \right)'$$

$$8^{\circ} \quad 26.25'$$

$$8 + \left(\frac{26.25}{60} \right)^{\circ}$$

$$(8 + .4375)^{\circ}$$

$$8.4375^{\circ}$$

ARITHMETIC

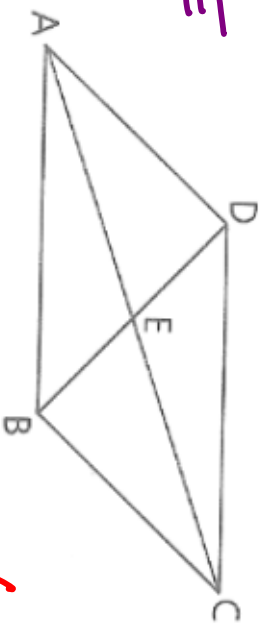
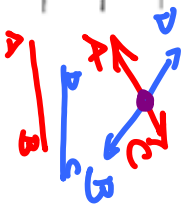
$$\begin{array}{r}
 32^{\circ} 12' 4'' \\
 + 5^{\circ} 10' 15'' \\
 \hline
 37^{\circ} 22' 19''
 \end{array}$$

$$\begin{array}{r}
 7^{\circ} 23' 59'' \\
 + 12^{\circ} 38' 14'' \\
 \hline
 19^{\circ} 61' 73''
 \end{array}$$

$$\begin{array}{r}
 19^{\circ} 62' 13'' \\
 + 1 - 60'' \\
 \hline
 20^{\circ} 0' 13''
 \end{array}
 \quad \leftarrow$$

$$\begin{array}{r}
 11^{\circ} 83' 59'' \\
 - 12^{\circ} 23' 59'' \\
 \hline
 7^{\circ} 38' 14'' \\
 - 4^{\circ} 45' 45'' \\
 \hline
 4^{\circ} 45' 45''
 \end{array}$$

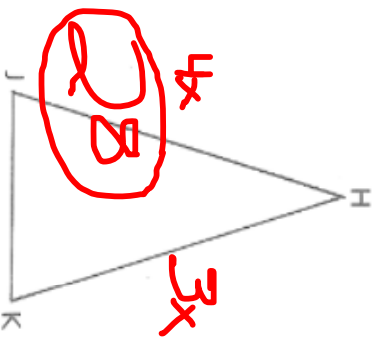
- 5 a $\overline{AB} \cap \overline{BC} = \underline{\quad ? \quad}$
 b $\overline{EC} \cup \overline{EA} = \underline{\quad ? \quad}$
 c $\overline{AC} \cap \overline{DB} = \underline{\quad ? \quad}$
 d $\overline{DC} \cap \overline{AB} = \underline{\quad ? \quad}$
 e $\overline{AC} \cap \overline{EC} = \underline{\quad ? \quad}$
 f $\overline{BA} \cup \overline{BC} = \underline{\quad ? \quad}$
 g $\overline{EC} \cup \overline{CB} \cup \overline{BE} = \underline{\quad ? \quad}$



$\{ \}$ EMPTY SET OR NULL SET \emptyset

Problem Set B

- 11 a In $\triangle HJK$, \overline{HJ} is twice as long as \overline{JK} and exactly as long as \overline{HK} . If the length of \overline{HJ} is 15, find the perimeter of (the distance around) $\triangle HJK$.
 b If the length of \overline{HJ} were $4x$, the length of \overline{HK} were $3x$, the length of \overline{JK} were $2x$, and the perimeter of $\triangle HJK$ were 63, what would the length of \overline{HJ} be?



$$9x = 63$$

$$x = 7$$

Problem Set C

- 13 Draw a diagram in which the intersection of $\angle AEF$ and $\angle DPC$ is \overline{ED} .

$$12^{\circ} 30' \\ \underline{60} \\ 12.5^{\circ}$$

$$83^{\circ} 88' 12'' \\ + 24^{\circ} 17' 38'' \\ \hline 107^{\circ} 105' 50''$$

$$\underline{+1 -60}$$

$$108^{\circ} 45' 50''$$

$$98^{\circ} 23' 75'' \\ \underline{99^{\circ} 24' 15''} \\ 83^{\circ} 25' 22'' \\ \underline{15^{\circ} 58' 53''}$$

$$41^{\circ} 12' 96'' \\ + 94^{\circ} 95' 98'' \\ \hline 135^{\circ} 107' 194''$$

$$\underline{+3 -180} \\ 135^{\circ} 110' 14''$$

$$\underline{+1 -60} \\ 136^{\circ} 50' 14''$$

Acute \angle
Ref \angle
Obtuse \angle
St \angle

$0^\circ < m\angle A < 90^\circ$
 $m\angle B = 90^\circ$
 $90^\circ < m\angle C < 180^\circ$
 180°