

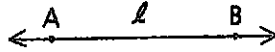
1A-1 Geometry Notation

Part Three: Problem Sets

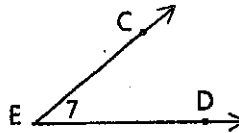
Problem Set A

In the back of the book, you will find answers to many of the problems. It will help you learn to check your answer in the back after you solve a problem. Then rethink your work if necessary.

- 1 What are three possible names for the line shown?



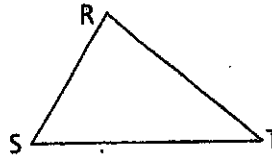
- 2 What are four possible names for the angle shown?



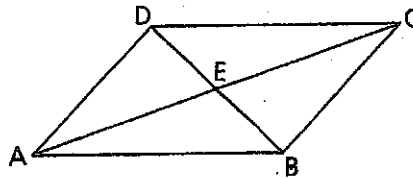
- 3 Can the ray shown be called \overrightarrow{XY} ?



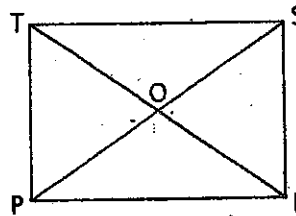
- 4 Name the sides of $\triangle RST$.



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

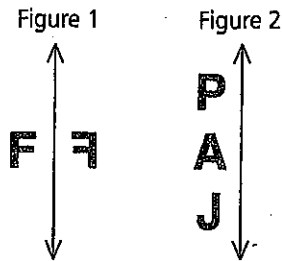


- 6 a Name $\angle OPR$ in all other possible ways.
 b What is the vertex of $\angle TOS$?
 c How many angles have vertex R?
 d Name $\angle TSP$ in all other possible ways.
 e How many triangles are there in the figure?

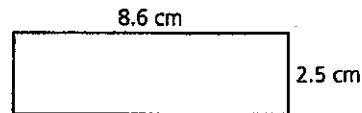


Problem Set A, continued

- 7 Figure 1 shows the reflection of the letter *F* over a line. Copy Figure 2 and draw the reflections of the letters *P*, *A*, and *J* over the given line.

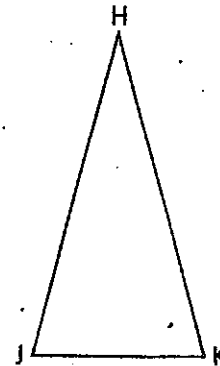


- 8 a A line is made up of ?.
 b An angle is the union of two ? with a common ?.
- 9 Draw a number line and label points *F*, *G*, *H*, and *J* with the coordinates $-4\frac{2}{3}$, 2, 5, and 3.5 respectively. One of these points is the midpoint (the halfway point) between two others. Which is it?
- 10 Given a rectangle with sides 2.5 cm and 8.6 cm long, find
- a The rectangle's area
 b The rectangle's perimeter (the distance around it)



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?



- 12 Draw a diagram in which $\overline{AB} \cap \overline{CD} = \overline{CE}$.

Problem Set C

- 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?

