

Name _____ Date _____ Period _____

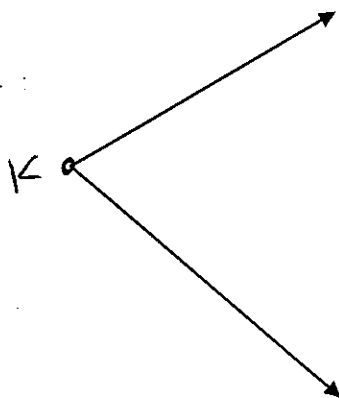
HW #1-8

Finish this worksheet. Use a compass and a straightedge to complete the following constructions. DO NOT ERASE ANY PENCIL MARKS! Remember, you can watch the YouTube videos that are posted on Edline to help you with this part of the homework assignment.

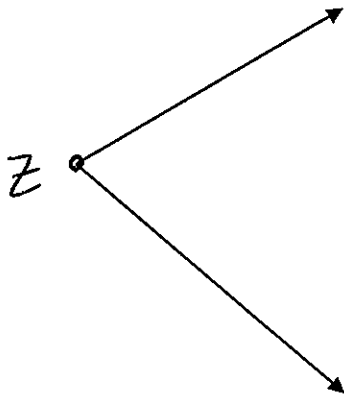
1. Construct a segment congruent to $\overline{XY}$



2. Construct an angle congruent to $\angle K$



3. Construct the angle bisector of $\angle Z$



For the following, show all required work.

4. $\overrightarrow{BD}$ bisects $\angle ABC$. If $m\angle ABD = (6x + 4)^\circ$ and $m\angle DBC = (8x - 4)^\circ$, find the measure of each of the angles. Draw a diagram.

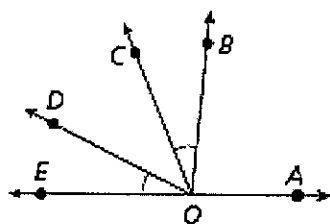
5. T is in the interior of $\angle RSU$. If $m\angle TSU = 46.7^\circ$ and $m\angle RSU = 83.5^\circ$, find $m\angle RST$. Draw a diagram.

6. Find the value of x . Use the diagram below and the following pieces of information. Start your work with a letter equation.

$$m\angle AOB = 6x + 5$$

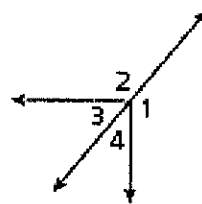
$$m\angle BOC = 4x - 2$$

$$m\angle AOC = 8x + 21$$



7. Tell whether the angles are only adjacent, adjacent and form a linear pair, or not adjacent. Use the diagram given.

- $\angle 1$ and $\angle 4$
- $\angle 2$ and $\angle 3$
- $\angle 3$ and $\angle 4$
- $\angle 3$ and $\angle 1$



8. Given $m\angle A = 56.4^\circ$, find the following. Draw a diagram for each.

- The supplement of $\angle A$
- The complement of $\angle A$