FM Geometry Name: Key

Chapter 1 Review Sheet Date: _____ Pd: _____

Complete the following sentences.

1. $\overline{XY}$ consists of the endpoints X and Y and all the points on $\overleftrightarrow{XY}$ that lie between X and Y.

2. $\overrightarrow{MN}$ consists of the initial point M and all points on $\overleftrightarrow{MN}$ that lie on the same side of M as N.

3. $\overrightarrow{CA}$ and $\overrightarrow{CB}$ are opposite rays if C is between A and B.

4. The distance between points A and B is denoted AB.

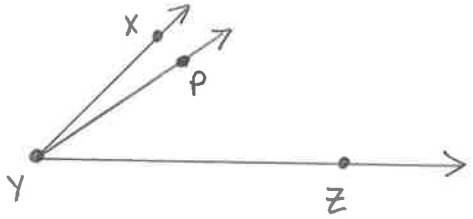
Draw a diagram and complete the following postulates.

5. Segment Addition Postulate

If B is between A and C, then $AB + BC = AC$.

6. Angle Addition Postulate

If P is in the interior of $\angle XYZ$, then $m\angle XYP + m\angle PYZ = m\angle XYZ$.



7. Prove the Midpoint Theorem on the back of this paper!

The Midpoint Theorem

If M is the midpoint of $\overline{AB}$, then $AM = MB$, $AM = \frac{1}{2}AB$, and $MB = \frac{1}{2}AB$.

Given: M is the midpoint of $\overline{AB}$

Prove: $AM = MB$, $AM = \frac{1}{2}AB$, $MB = \frac{1}{2}AB$

	Statements	Reasons
①	M is the midpoint of $\overline{AB}$	Given
②	$\overline{AM} \cong \overline{MB}$	Def. of Midpoint
③	$AM = MB$	Def. of $\cong$ segments
④	$AM + MB = AB$	Seg. Add. Post.
⑤	$AM + AM = AB$	Subst. Prop. of = (③ → ④)
⑥	$2AM = AB$	Distributive Property
⑦	$AM = \frac{1}{2}AB$	Division Prop. of =
⑧	$MB = \frac{1}{2}AB$	Subst. Prop. of = (③ → ⑦)