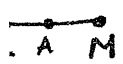
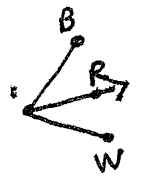


4. Make a conclusion using all of the given information AND provide a reason to support the conclusion. In some cases, it will help to draw a picture first.

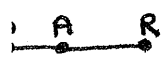


a. A is the midpoint of \overline{LM} . C: $\overline{LA} \cong \overline{AM}$ R: midpoint $\Rightarrow \cong$ segments

b. $\angle H$ and $\angle D$ are vertical angles. C: $\angle H \cong \angle D$ R: Vertical Angles are \cong



c. \overline{RA} bisects $\angle BAW$. C: $\angle BAR \cong \angle RAW$ R: \angle bisector $\Rightarrow \cong$ angles



d. A is between B and R. C: $\overline{BA} + \overline{AR} = \overline{BR}$ R: Segment Addition Postulate

e. $\angle 1$ and $\angle 4$ are supplementary angles. C: $m\angle 1 + m\angle 4 = 180^\circ$ R: ^{sum of} supplementary $\Rightarrow 180^\circ$

f. $m\angle 5 + m\angle 6 = 90^\circ$. C: $\angle 5$ and $\angle 6$ are Complementary R: sum of $90^\circ \Rightarrow$ Compl. angles

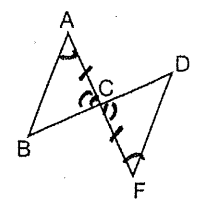
g. $\angle 4 \cong \angle 5$ C: $m\angle 4 = m\angle 5$ R: Congruent angles \Rightarrow equal measures

5. Given: $m\angle 1 + m\angle 2 = 90^\circ$
 $\angle 2 \cong \angle 5$

Prove: $\angle 1$ and $\angle 5$ are complementary

6. Given: C is the midpoint of \overline{AF}
 $\angle A \cong \angle F$

Prove: $\triangle ABC \cong \triangle FDC$



Statements	Reasons	Statements	Reasons
$m\angle 1 + m\angle 2 = 90^\circ$	1. given	1. C is the midpoint of \overline{AF}	1. given
$\angle 2 \cong \angle 5$	2. given	2. $\overline{AC} \cong \overline{CF}$	2. midpt \Rightarrow congruent segments
$m\angle 2 = m\angle 5$	3. $\cong \angle s \Rightarrow$ equal measures	3. $\angle A \cong \angle F$	3. given
$m\angle 1 + m\angle 5 = 90^\circ$	4. substitution prop. of =	4. $\angle ACB$ and $\angle DCF$ are vertical $\angle s$	4. Shown in Diagram
$\angle 1$ and $\angle 5$ are Complementary	5. sum of $90^\circ \Rightarrow$ Complementary angles	5. $\angle ACB \cong \angle DCF$	5. Vertical Angles are \cong
		6. $\triangle ABC \cong \triangle FDC$	6. ASA