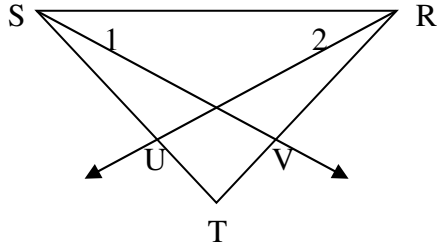
Practice Worksheet for Lesson 2-3 (part II) Name:

Fill in the missing information on the given proofs.

1) Given: M is the midpoint of $\overline{PQ}$; N is the midpoint of $\overline{RS}$; PQ = RS
Prove: PM = RN

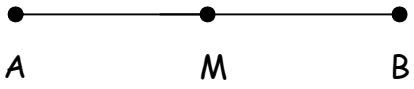
Statements	Reasons
1. M is the midpoint of $\overline{PQ}$ N is the midpoint of $\overline{RS}$	
2. PM = ½ PQ; RN = ½ RS	
3. PQ = RS	
4. ½ PQ = ½ RS	
5. PM = RN	

2) Given: $\overrightarrow{SV}$ bisects < RST; $\overrightarrow{RU}$ bisects < SRT; m< RST = m< SRT
Prove: m< 1 = m< 2



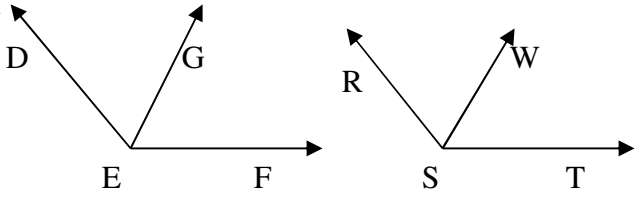
Statements	Reasons
1) $\overrightarrow{SV}$ bisects < RST $\overrightarrow{RU}$ bisects < SRT	
2) m< 1 = ½ m< RST m< 2 = ½ m< SRT	
3) m< RST = m< SRT	
4) ½ m< RST = ½ m< SRT	
5) m< 1 = m< 2	

3) Given: M is the midpoint of $\overline{AB}$
Prove: AM = $\frac{1}{2}$ AB; MB = $\frac{1}{2}$ AB



Statements	Reasons
1) M is the midpoint of $\overline{AB}$	
2) $\overline{AM} \cong \overline{MB}$, or AM = MB	
3) AM + MB = AB	
4) AM + AM = AB, or 2AM = AB	
5) AM = $\frac{1}{2}$ AB	
6) MB = $\frac{1}{2}$ AB	

4) Given: $\overrightarrow{EG}$ is the bisector of < DEF; $\overrightarrow{SW}$ is the bisector of < RST;
m< DEG = m < RSW
Prove: m< DEF = m< RST



Statements	Reasons
1) $\overrightarrow{EG}$ is the bisector of < DEF $\overrightarrow{SW}$ is the bisector of < RST	
2) m< DEG = $\frac{1}{2}$ m< DEF; m< RSW = $\frac{1}{2}$ m< RST	
3) m< DEG = m< RSW	
4) $\frac{1}{2}$ m< DEF = $\frac{1}{2}$ m< RST	
5) m< DEF = m< RST	