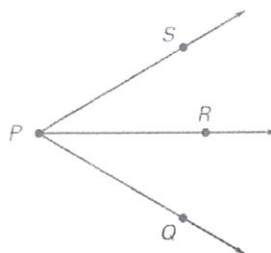


Complete each of the following by supplying the missing statements and reasons.

1. Given: $m\angle RPQ = m\angle RPS$
Prove: $m\angle SPQ = 2m\angle RPQ$



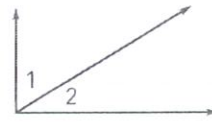
Statements	Reasons
1. $m\angle RPQ = m\angle RPS$	1. Given
2. $m\angle SPQ = m\angle SPR + m\angle RPQ$	2. Angle Addition Post.
3. $m\angle SPQ = m\angle RPQ + m\angle RPQ$	3. Substitution
4. $m\angle SPQ = 2m\angle RPQ$	4. Simplify

2. Given: $MA = TH$
Prove: $MT = AH$



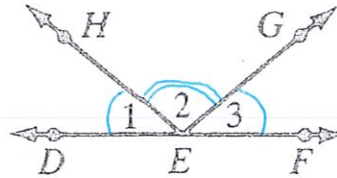
Statements	Reasons
1. $MA = TH$	1. Given
2. $AT = AT$	2. Reflexive Prop.
3. $MA + AT = TH + AT$	3. Addition Prop.
4. $MA + AT = MT$ $AT + TH = AH$	4. Segment Addition Post.
5. $MT = AH$	5. Substitution

3. Given: $m\angle 1 + m\angle 2 = 90^\circ$
 $m\angle 1 = 59^\circ$
 Prove: $m\angle 2 = 31^\circ$



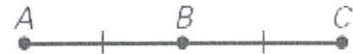
Statements	Reasons
1. $m\angle 1 + m\angle 2 = 90^\circ$ $m\angle 1 = 59^\circ$	1. Given
2. $m\angle 2 = 90^\circ - m\angle 1$	2. Subtraction Prop.
3. $m\angle 2 = 90^\circ - 59^\circ$	3. Substitution
4. $m\angle 2 = 31^\circ$	4. Simplify

4. Given: $m\angle 1 = m\angle 3$
 Prove: $m\angle DEG = m\angle HEF$



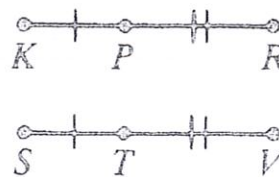
Statements	Reasons
1. $m\angle 1 = m\angle 3$	1. Given
2. $m\angle 2 = m\angle 2$	2. Reflexive Prop.
3. $m\angle 1 + m\angle 2 = m\angle 2 + m\angle 3$	3. Addition Prop.
4. $m\angle DEG = m\angle 1 + m\angle 2$ $m\angle HEF = m\angle 2 + m\angle 3$	4. Angle Addition Post.
5. $m\angle DEG = m\angle HEF$	5. Substitution

5. Given: $AB = BC$
 Prove: $AC = 2BC$



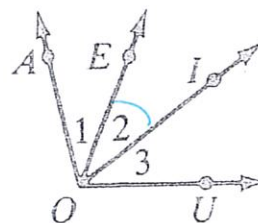
Statements	Reasons
1. $AB = BC$	1. Given
2. $AC = AB + BC$	2. Segment Addition Post.
3. $AC = BC + BC$	3. Substitution
4. $AC = 2BC$	4. Simplify

6. Given: $KP = ST$
 $PR = TV$
 Prove: $KR = SV$



Statements	Reasons
1. $KP = ST$ $PR = TV$	1. Given
2. $PR = PR$	2. Reflexive Prop.
3. $KP + PR = ST + PR$	3. Addition Prop.
4. $KP + PR = ST + TV$	4. Substitution
5. $KR = KP + PR$ $SV = ST + TV$	5. Segment Addition Postulate
6. $KR = SV$	6. Substitution

7. Given: $m\angle AOI = m\angle EOU$
 Prove: $m\angle 1 = m\angle 3$



Statements	Reasons
1. $m\angle AOI = m\angle EOU$	1. Given
2. $m\angle AOI = m\angle 1 + m\angle 2$ $m\angle EOU = m\angle 2 + m\angle 3$	2. Angle Add. Post.
3. $m\angle 1 + m\angle 2 = m\angle 2 + m\angle 3$	3. Substitution
4. $m\angle 2 = m\angle 2$	4. Reflexive Prop.
5. $m\angle 1 = m\angle 3$	5. Subtraction Prop.

