Name:_____   Date:_____
Introduction to Proofs   Geometry
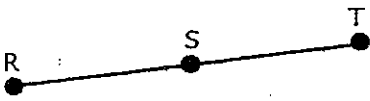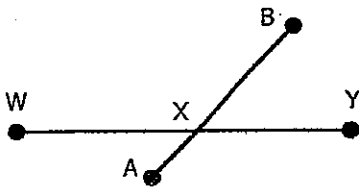
Always mark the picture after each statement

Fill in the blank statement, reason and mark the picture correctly.

1. Given: S is the midpoint of $\overline{RT}$
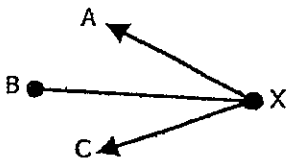   Prove: $\overline{RS} \cong \overline{ST}$

Statement	Reason
1) S is the midpoint of $\overline{RT}$	1) Given
2)	2)

2. Given: $\overline{AB}$ bisects $\overline{WY}$ at X
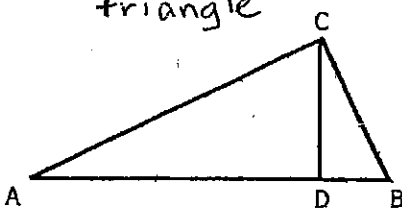   Prove: $\overline{WX} \cong \overline{XY}$

Statement	Reason
1) $\overline{AB}$ bisects $\overline{WY}$ at X	1) Given
2)	2)
3)	3)

3. Given: $\angle AXC$ is bisected by $\overline{BX}$
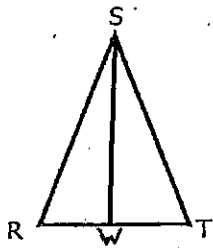   Prove: $\angle AXB \cong \angle CXB$

Statement	Reason
1) $\angle AXC$ is bisected by $\overline{BX}$	1) Given
2)	2)

4. Given: $\overline{CD} \perp \overline{AB}$
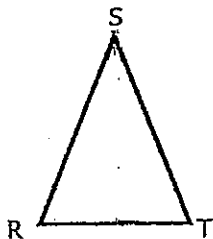   Prove: $\triangle BDC$ is a right triangle

Statement	Reason
1) $\overline{CD} \perp \overline{AB}$	1) Given
2)	2)
3)	3)

· Given: $\overline{SW}$ is a median
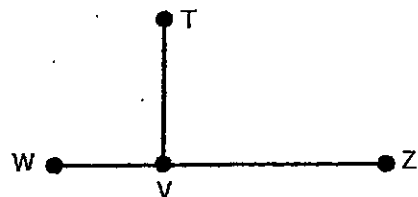Prove: $\overline{RW} \cong \overline{TW}$

Statement	Reason
1)	1) Given
2)	2)
3)	3)

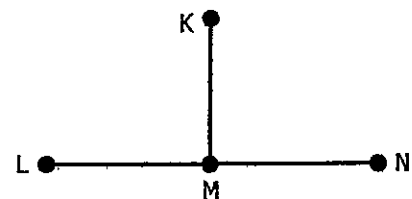· Given: $\triangle RST, RS = TS$
Prove: $\triangle RST$ is isosceles

Statement	Reason
1) $RS = TS$	1) Given
2)	2)
3)	3)

· Given: $\overline{TV} \perp \overline{WZ}$
Prove: $\angle WVT \cong \angle ZVT$

Statement	Reason
1) $\overline{TV} \perp \overline{WZ}$	1) Given
2)	2)
3)	3)

· Given: $\overline{KM} \perp$ bisector of $\overline{LM}$
Prove: $\angle LMK \cong \angle NMK$

Statement	Reason
1) $\overline{KM} \perp$ bisector of $\overline{LM}$	1) Given
2)	2)
3)	3)