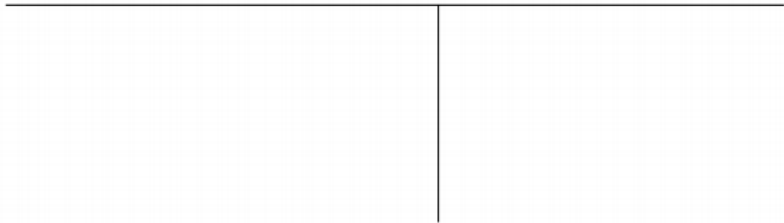
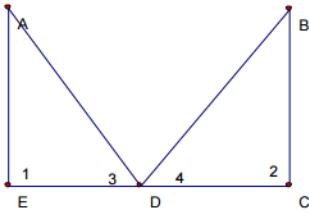
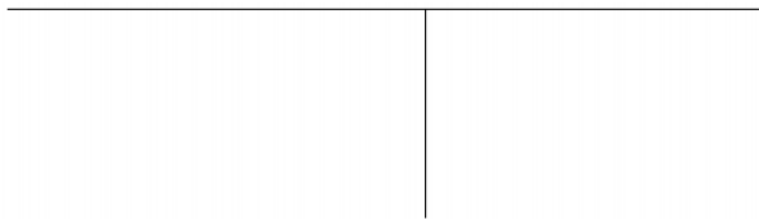
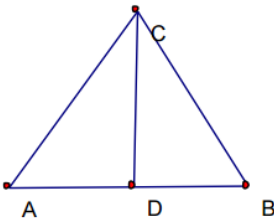


Practice with Congruent Triangles

1. **Given:** $\overline{AE} \perp \overline{ED}$
 $\overline{BC} \perp \overline{CD}$
D is the midpoint of \overline{EC} .
 $\angle 3 \cong \angle 4$
Prove: $\triangle AED \cong \triangle BCD$

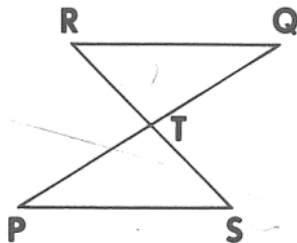


2. **Given:** $\overline{AC} \cong \overline{CB}$
 \overline{CD} bisects \overline{AB}
Prove: $\triangle ADC \cong \triangle BDC$

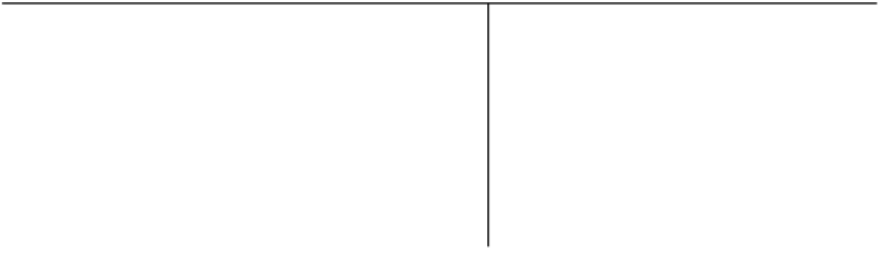
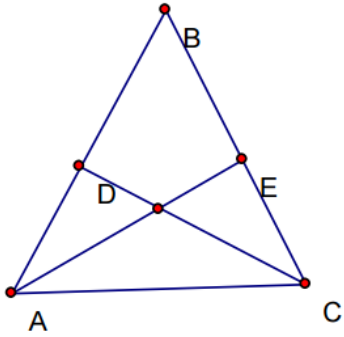


3.

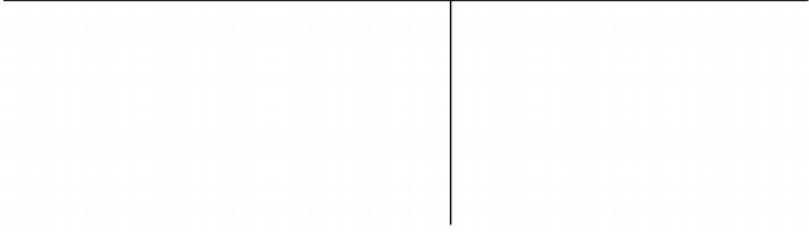
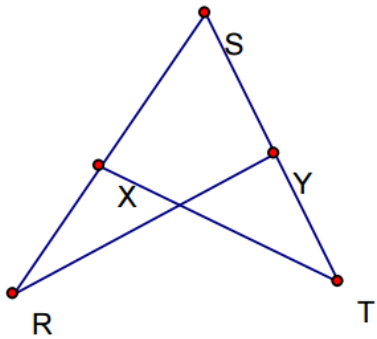
- Given:** \overline{RS} bisects \overline{PQ} at T , \overline{PQ} bisects \overline{RS} at T .
Prove: $\triangle PTS \cong \triangle QTR$.



4. **Given:** $\angle BAC \cong \angle BCA$
 \overline{CD} bisects $\angle BCA$
 \overline{AE} bisects $\angle BAC$
Prove: $\triangle ADC \cong \triangle CEA$



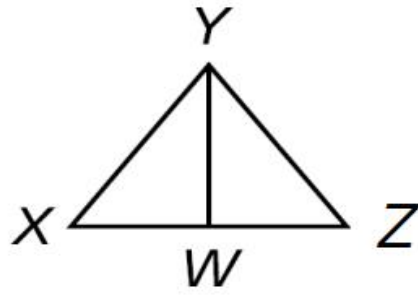
5. **Given:** \overline{SR} and \overline{ST} are straight lines.
 $\overline{SX} \cong \overline{SY}$
 $\overline{XR} \cong \overline{YT}$
Prove: $\triangle RSY \cong \triangle TSX$



Example 1:

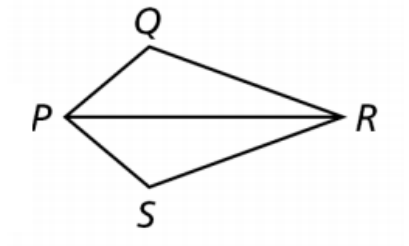
Given: W is the midpoint of \overline{XZ} , $\overline{XY} \cong \overline{ZY}$

Prove: $\angle XYW \cong \angle ZYW$



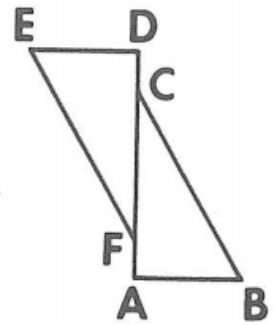
Statements	Reasons
1	1
2	2
3	3
4	4
5	5
6	6

Example 2: **Given:** \overline{PR} bisects $\angle QPS$ and $\angle QRS$.
Prove: $\overline{PQ} \cong \overline{PS}$



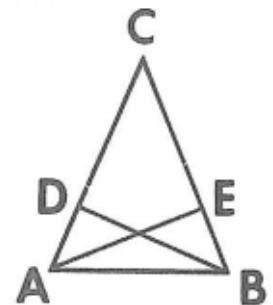
Statements	Reasons
1	1
2	2
3	3
4	4
5	5
6	6

3. Given: \overline{AFCD} , $\overline{ED} \perp \overline{DA}$, $\overline{BA} \perp \overline{DA}$, $\overline{DC} \cong \overline{AF}$, and $\angle E \cong \angle B$.
 Prove: $\overline{EF} \cong \overline{BC}$.



Statements	Reasons
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8

4. Given: In $\triangle ACB$, $\overline{AC} \cong \overline{BC}$ and $\angle ADB \cong \angle BEA$.
 Prove: $\overline{AE} \cong \overline{BD}$.



Statements	Reasons
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8