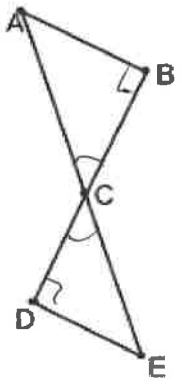
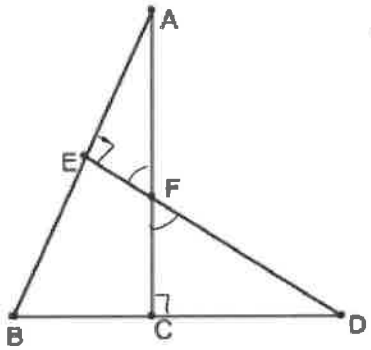
Name _____ Date _____

1. **Given:** $\overline{CB} \perp \overline{BA}$, $\overline{CD} \perp \overline{DE}$
Prove: $\Delta ABC \sim \Delta EDC$



Statements	Reasons
$CB \perp BA$, $CD \perp DE$	Given
$\angle B$ & $\angle D$ are rt $\angle$s	$\perp$ lines form rt $\angle$s
$\angle B \cong \angle D$	All rt $\angle$s are $\cong$
$\angle ACB \cong \angle ECD$	Vertical $\angle$s
$\Delta ABC \sim \Delta EDC$	AA Similarity

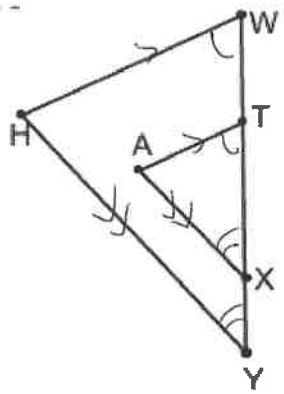
2. **Given:** $\overline{AC} \perp \overline{BD}$ and $\overline{DE} \perp \overline{AB}$
Prove: $\Delta EFA \sim \Delta CFD$



Statements	Reasons
$AC \perp BD$, $DE \perp AB$	Given
$\angle AEF$ & $\angle DCF$ are rt $\angle$s	$\perp$ lines form rt $\angle$s
$\angle AEF \cong \angle DCF$	All rt $\angle$s are $\cong$
$\angle AFE \cong \angle CFD$	Vert $\angle$s
$\Delta EFA \sim \Delta CFD$	AA Similarity

3. **Given:** $\overline{HW} \parallel \overline{TA}$, $\overline{HY} \parallel \overline{AX}$

Prove: $\Delta ATX \sim \Delta HWY$



Statements	Reasons
$HW \parallel TA$, $HY \parallel AX$	Given
$\angle HWT \cong \angle ATX$	$\parallel$ lines, corresponding $\angle$s are $\cong$
$\angle HYX \cong \angle AXT$	
$\Delta ATX \sim \Delta HWY$	AA Similarity