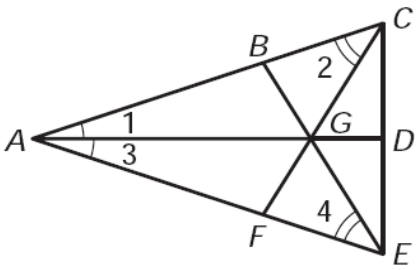
**Name:** _____

# AAS, HA, LL and HL Theorems

**In the diagram,** $\text{Đ}1 \cong \text{Đ}3$ *and* $\text{Đ}2 \cong \text{Đ}4$

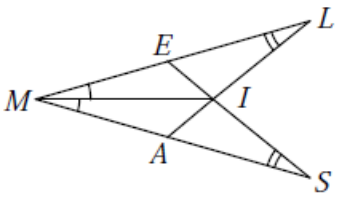



**1)** Prove that $\text{V}AGC \cong \text{V}AGE$

**2)** Prove that $\text{V}BCG \cong \text{V}FEG$

**3)** Prove that $\text{V}CDG \cong \text{V}EDG$

**In the diagram,** $\text{Đ}EMI \cong \text{Đ}AMI$ *and* $\text{Đ}MLA \cong \text{Đ}MSE$



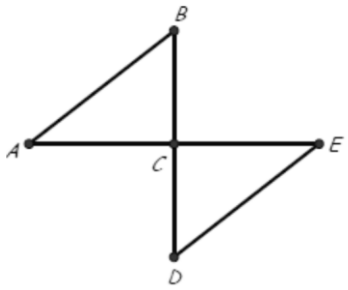

**4)** Prove that $\text{V}MIL \cong \text{V}MIS$

**5)** Prove that $\text{V}EIL \cong \text{V}AIS$

**6) Given:** $\overline{AB} \cong \overline{ED}$

C is the midpoint of $\overline{AE}$

$\overline{AE} \perp \overline{BD}$



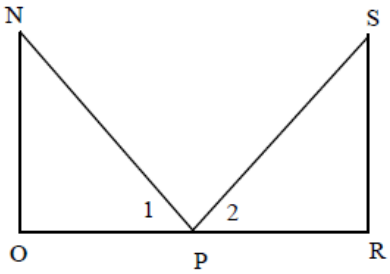

**Prove:** $\triangle BAC \cong \triangle DEF$

**7) Given:** $\overline{NO} \cong \overline{OR}$

$\overline{NO} \perp \overline{OR}$

$\overline{SR} \perp \overline{OR}$

Ð1 @ Ð2



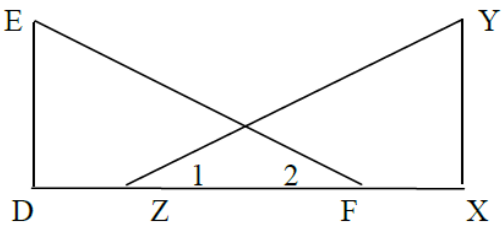

**Prove:** $\triangle NPO \cong \triangle SPR$

**8) Given:** $\overline{EF} \cong \overline{YZ}$

$\overline{YX} \perp \overline{DX}$

$\overline{ED} \perp \overline{DX}$

ÐE @ ÐY




**Prove:** $\triangle EDF \cong \triangle YXZ$