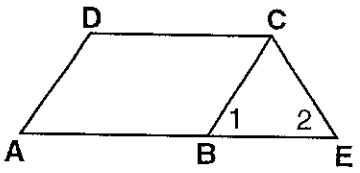
Name: _____

Parallelogram Proofs

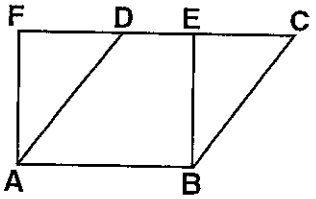
1)




Given: ABCD is a parallelogram
$\angle 1 \cong \angle 2$

Prove: AECD is an isosceles trapezoid

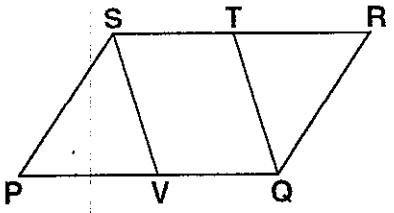
2)




Given: ABCD is a parallelogram
$\overline{BE} \perp \overline{FC}$
$\overline{AF} \perp \overline{FC}$

Prove: ABEF is a parallelogram

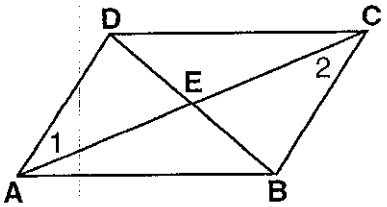
3)




Given: PQRS is a parallelogram
$\overline{TR} \cong \overline{PV}$

Prove: VQTS is a parallelogram

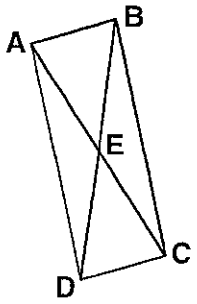
4)




Given: $\overline{DB}$ bisects $\overline{AC}$
$\angle 1 \cong \angle 2$

Prove: ABCD is a parallelogram

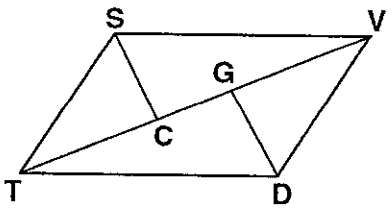
5)




Given: $\overline{BE}$ is the median to $\overline{AC}$ of $\triangle ABC$
$\overline{CE}$ is the median to $\overline{DB}$ of $\triangle CDB$

Prove: ABCD is a parallelogram

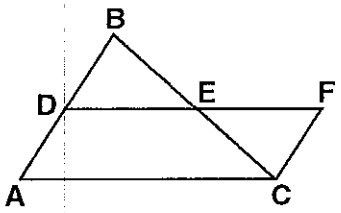
6)




Given: $\overline{SC} \perp \overline{TV}$
$\overline{DG} \perp \overline{TV}$
$\overline{SC} \cong \overline{DG}$
$\overline{SV} \cong \overline{TD}$

Prove: TDVS is a parallelogram

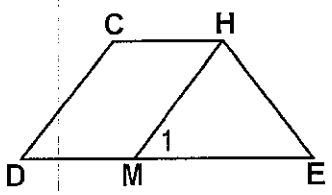
7)




Given: D is the midpoint of $\overline{AB}$
$\overline{DF}$ and $\overline{BC}$ bisect each other

Prove: ACFD is a parallelogram

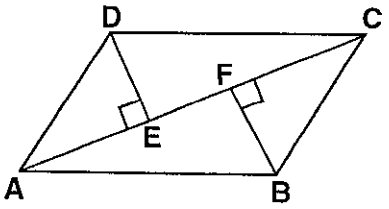
8)




Given: $\angle D \cong \angle 1$
$\angle 1 \cong \angle E$
$\overline{CD} \cong \overline{HE}$

Prove: CHMD is a parallelogram

9)




Given: $\overline{DE} \perp \overline{AC}$
$\overline{BF} \perp \overline{AC}$
$\overline{AE} \cong \overline{FC}$
$\overline{DE} \cong \overline{FB}$

Prove: ABCD is a parallelogram