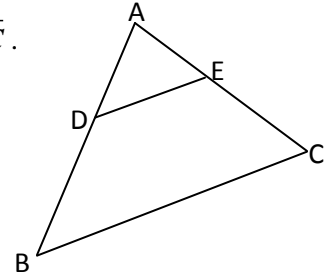


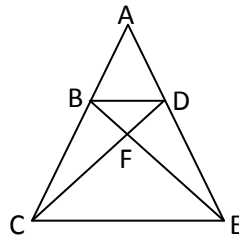
Geometry
SIMILAR \triangle PROOFS – Make Up Homework 7-3 or Extra Credit

For each of the following, write the complete proof on a separate sheet of paper.

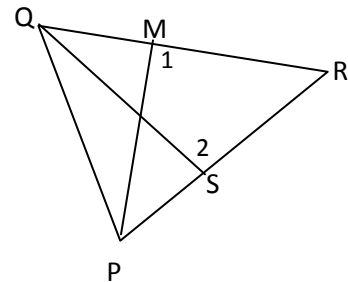
1. Given: $\triangle ABC$; D is a point on \overline{AB} and E is a point on \overline{AC} such that $\overline{DE} \parallel \overline{BC}$.
 Prove: a. $\triangle ADE \sim \triangle ABC$
 b. $\frac{AD}{AB} = \frac{AE}{AC}$



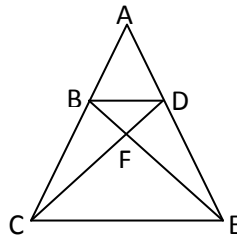
2. Given: $\triangle ACE$, B is a point on \overline{AC} , D is a point on \overline{AE} . \overline{BE} & \overline{DC} intersect at F. $\angle ABE \cong \angle ADC$.
 Prove: a. $\frac{AB}{AD} = \frac{AE}{AC}$
 b. $AB \cdot AC = AD \cdot AE$



3. Given: Acute $\triangle PQR$ with altitudes \overline{QS} and \overline{PM} intersecting at D.
 Prove: a. $\frac{QS}{PM} = \frac{QR}{PR}$
 b. $QS \cdot PR = PM \cdot QR$



4. Given: $3BE=2AC$; $3CE=2AE$, $3BC=2CE$
 Prove: $\angle A \cong \angle BEC$



5. Given: $2RS=RQ$; $2TR=PR$
 Prove: $\overline{QP} \parallel \overline{ST}$

