Name _____ Date _____ Class # _____ Block _____

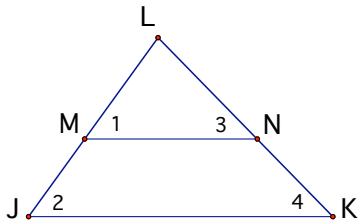
Chapter 8- Lesson 2

Proving Triangles Similar using SAS

Goals
Prove triangles similar using the Side-Angle-Side Similarity Theorem.

You may have noticed that all of the previous similar triangle proofs could be done using the Angle-Angle Similarity Theorem. I thought it would be remiss if I did not give you the opportunity to prove some triangles similar using the Side-Angle-Side Similarity Theorem. Please use other paper to do these proofs.

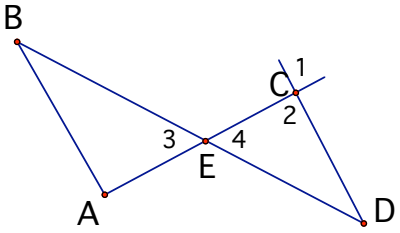
1. Given: $\frac{LM}{LJ} = \frac{LN}{LK}$
   Prove: $\Delta MLN \sim \Delta JLK$



For problems 1

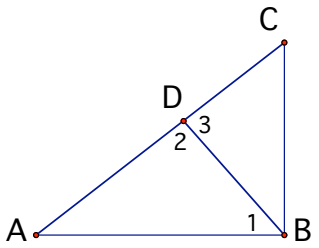
2. Given: $\frac{AE}{EC} = \frac{EB}{ED}$
   Prove: $\Delta ABE \sim \Delta CDE$

3. Given: $\frac{AE}{AB} = \frac{EC}{CD}$ and $\overleftrightarrow{BA} \parallel \overleftrightarrow{CD}$
   Prove: $\Delta ABE \sim \Delta CDE$



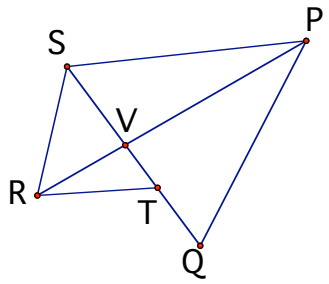
For problems 2 and 3

4. Given: $\frac{DB}{DC} = \frac{AB}{CB}$; $\measuredangle 1 \cong \measuredangle C$
   Prove: $\triangle ADB \sim \triangle CDB$



For problems 4

5. Given: $(SR)(QV) = (SV)(QP)$; $\overline{SR} \parallel \overline{PQ}$
   Prove: $\triangle SRV \sim \triangle QPV$



For problem 5