

# Proofs for Math 1

*Proofs.*

**Problem 1** *Because lines  $m$  and  $n$  are parallel, by alternate interior angles,  $\angle 1 \cong \angle 2$ .*

*Because lines  $k$  and  $l$  are parallel, by corresponding angle  $\angle 3 \cong \angle 2$ .*

*Then  $\angle 1 \cong \angle 3$  because they are both congruent to  $\angle 2$  (or by substitution).*

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