Corollary to the Base Angles Theorem
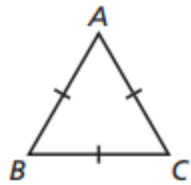
PROOF: **Given**: equilateral ΔABC

Prove: ΔABC is equiangular

Statements	Reasons
ΔABC is equilateral	Given
$\overline{AC} \cong \overline{BC}$, $\overline{AB} \cong \overline{AC}$, and $\overline{AB} \cong \overline{BC}$	Definition of an equilateral triangle
$\angle A \cong \angle B$, $\angle B \cong \angle C$, and $\angle A \cong \angle C$	Base Angles Theorem
ΔABC is equiangular	Definition of an equiangular triangle

Corollary to the Converse of the Base Angles Theorem

PROOF: **Given**: equiangular ΔABC

Prove: ΔABC is equilateral
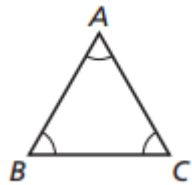
Statements	Reasons
ΔABC is equiangular	Given
$\angle A \cong \angle B$, $\angle B \cong \angle C$, and $\angle A \cong \angle C$	Definition of an equiangular triangle
$\overline{AC} \cong \overline{BC}$, $\overline{AB} \cong \overline{AC}$, and $\overline{AB} \cong \overline{BC}$	Converse of the Base Angles Theorem
ΔABC is equilateral	Definition of an equilateral triangle