Corollary to a Theorem

Definition

Corollary to a Theorem: A corollary is a statement that follows directly from a previously proven theorem and can be proved with little or no additional work.

Key points:

- A corollary is usually a “bonus” result that comes from a theorem.
- It is considered true because the theorem it follows has already been proven.
- Often, corollaries simplify or extend the application of a theorem.

Example:

Theorem: The sum of the angles in a triangle is $180°$.

Corollary: Each angle of an equilateral triangle measures $60°$.

Why it’s a corollary:

- Once the theorem about the sum of angles is proven, it immediately follows that if all three angles are equal (equilateral triangle), each must be $180° \div 3 = 60°$.
- Very little additional proof is needed beyond the original theorem.