Theorem 5.1

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Suppose that A, B, C are three consecutive vertices of a polygon. If at the vertex B we Extend one of the two sides through B to a ray, then we create an exterior angle.

Theorem 5.1. Given a triangle ABC, and extending sides AB through point B and CB though point B, angle ABD and angle CBE are congruent.

Proof. Let ABC be a triangle. Extend side AB through point B and extend side CB through point B. Let E be a point on the extended side AB after point B. Also let D be a point on the extended side CB after point B. Let ABD and CBE be angle. By the Vertical Angles Theorem, angles ABD and CBE are congruent.
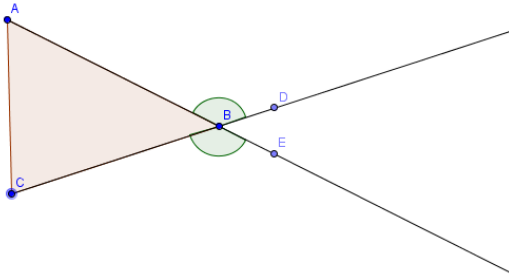

Figure 1: Triangle ABC

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