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# Math 1166: Parallels in Geometry!

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## 0.1 Inscribed Angles

*Inscribed angles exploration.*

**Definition 1.** In a circle, a **central angle** has the center of the circle as its vertex. An **inscribed angle** has a point on the circle as its vertex. An **arc** of a circle has both a measure and a length. **Arc measure** indicates an amount of turning (in degrees). An **arc length** is a distance.

Geogebra link: <https://tube.geogebra.org/m/kcq9bpbd>

- Problem 1** (a) Keeping points  $A$  and  $C$  fixed, when point  $B$  moves,  $m\angle ABC$  (increases/ stays the same/ decreases/ varies widely).
- (b) The arc measure is (equal to/ half/ double/ unrelated to) the measure of the corresponding central angle.
- (c) The measure of an inscribed angle is (equal to/ half/ double/ unrelated to) the measure of the corresponding central angle.
- (d) The measure of an inscribed angle is (equal to/ half/ double/ unrelated to) the measure of the corresponding arc.

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Maybe some questions about visually estimating angle measures or arc measures.