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.*

Definition 2. *An* ***arc*** *of a circle is a portion of its circumference. An arc has both a length and a measure. An* ***arc length*** *is a distance. An* ***arc measure*** *indicates an amount of turning (e.g., in degrees). A* ***major arc*** *measures more than* $180°$*; a* ***minor arc*** *measures less than* $180°$*.*

Geogebra link: `https://tube.geogebra.org/m/kcq9bpbd`

Problem 1 (a) *The arc measure is (equal to/ half/ double/ unrelated to) the measure of the corresponding central angle.*

(b) *The measure of an inscribed angle 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 arc.*

(d) *Keeping points A and C fixed, when point B moves, $m\angle ABC$ (increases/ stays the same/ decreases/ varies widely), as long as A, B and C remain in clockwise order on the circle.*

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