8.3 Properties of Angles in a Circle

inscribed angle ∠ACB
* vertex on the circle

Central angle ∠AOB
vertex at the centre
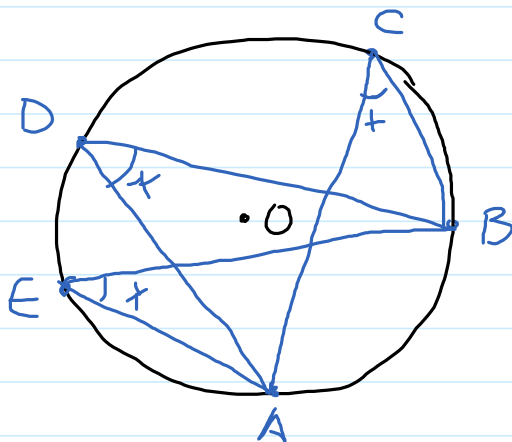
Arc AB
both angles are subtended by arc AB
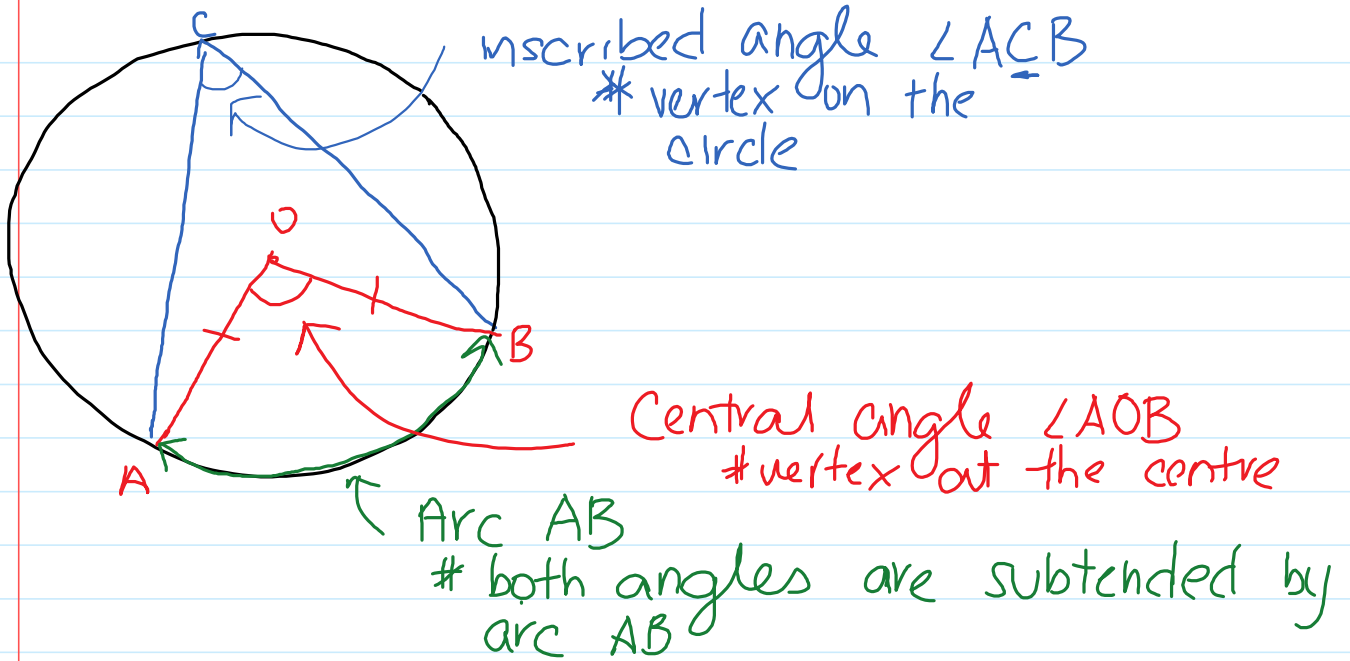
Central Angle : Inscribed Angle Property

- the measure of the central angle is twice the measure of an inscribed angle subtended by the same arc
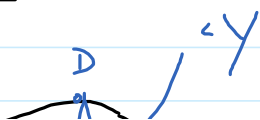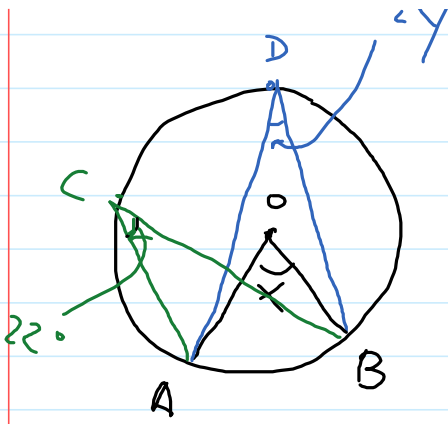
Inscribed Angles Property

Inscribed angles subtended by the same arc are equal

∠ACB = ∠ADB = ∠AEB
↓   ↓   ↓
∠C =   ∠D =   ∠E

Ex #1

∠Y

D

C

O

∠X

A   B

22°

∠X ?   ∠Y ?

44°   22°
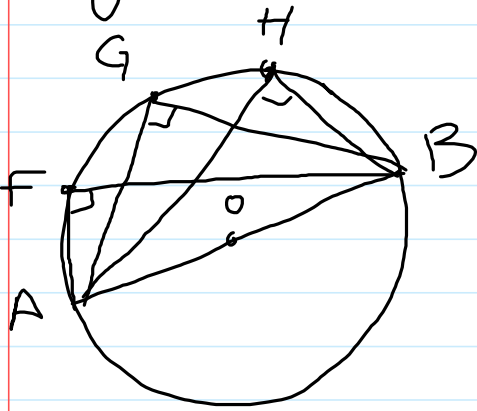
Angles in a semicircle Property

G   H
                        B
F
        O
A

Inscribe angles subtended
by a semicircle are
right angles

= 90°

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