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Professor Ricardinho

Matemática – Frente B



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Ângulos numa circunferência

ASSISTA À AULA



Professor Ricardinho

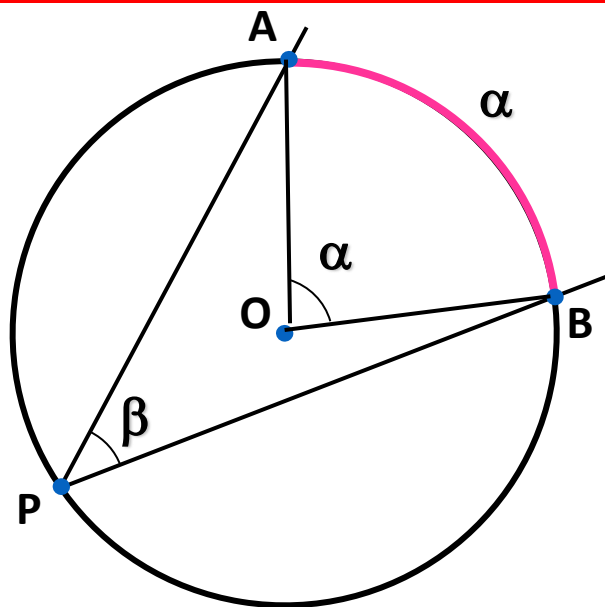


Matemática – Frente B

GEOMETRIA PLANA

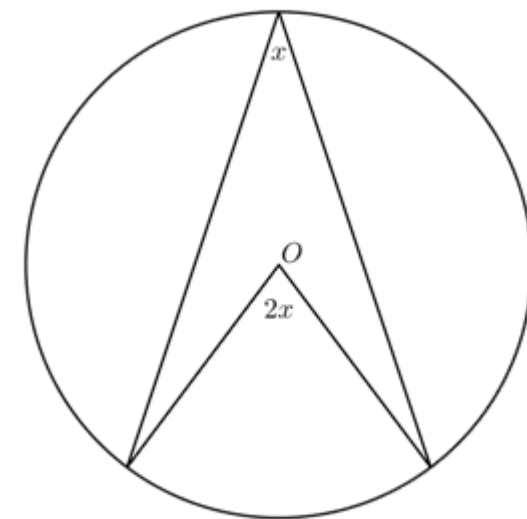
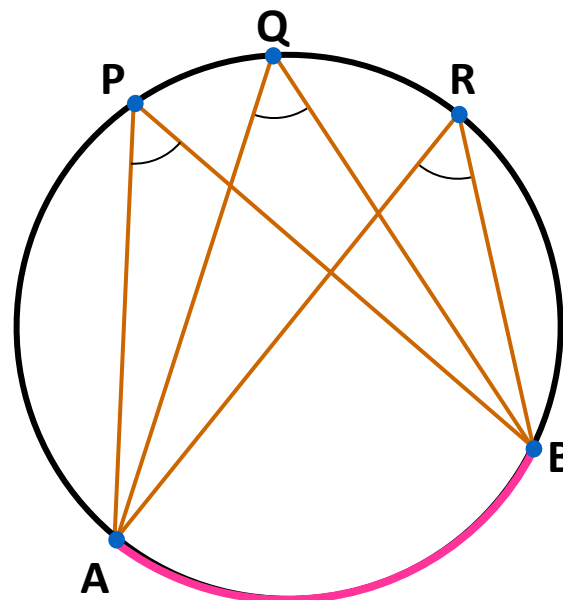
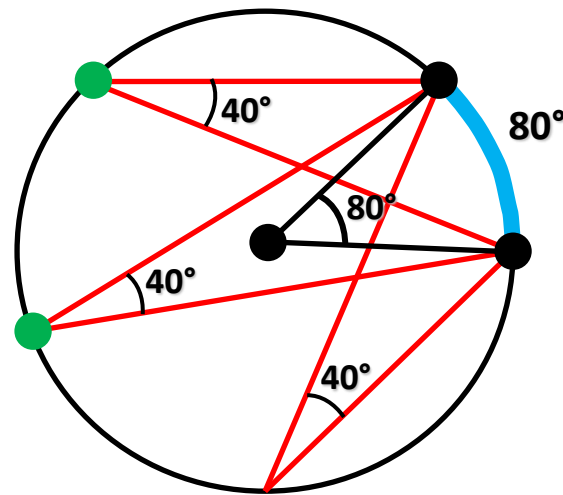


ÂNGULOS NUMA CIRCUNFERÊNCIA



$$m(\text{APB}) = \beta = \frac{\alpha}{2}$$

CLIQUE AQUI



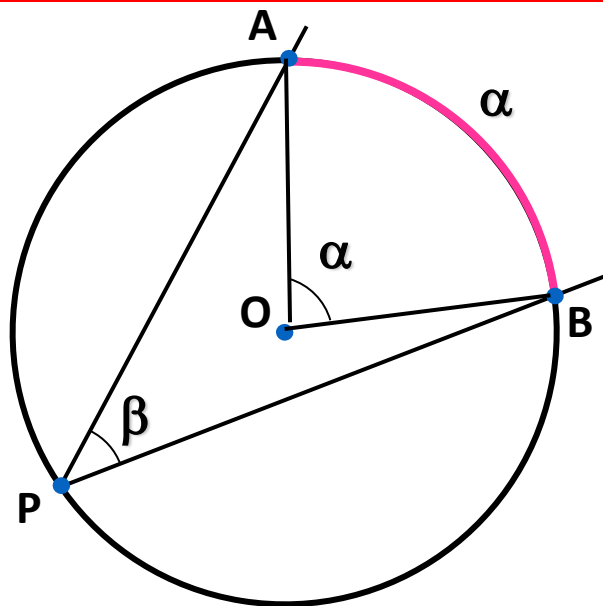
Angles in the Same Segment are Equal

$$m(\text{APB}) = m(\text{AQB}) = m(\text{ARB}) = \frac{AB}{2}$$

GEOMETRIA PLANA

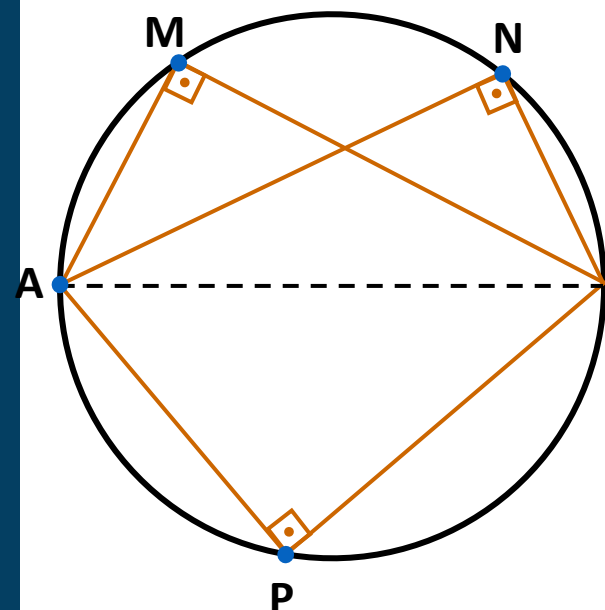


ÂNGULOS NUMA CIRCUNFERÊNCIA

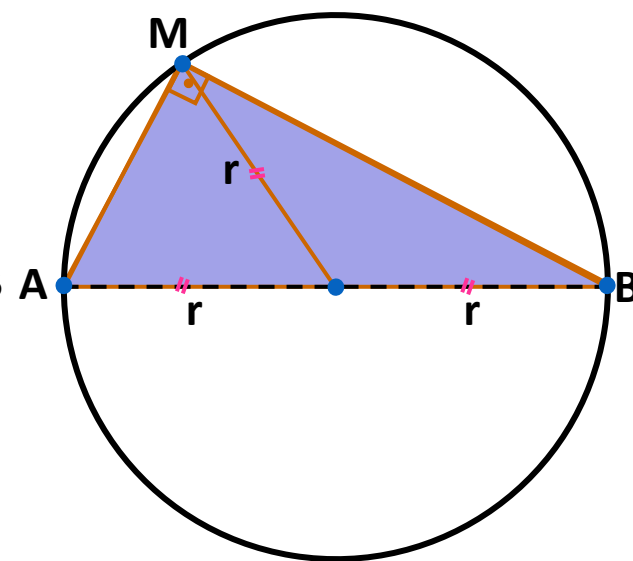


$$m(\text{APB}) = \beta = \frac{\alpha}{2}$$

CONSEQUÊNCIA 1



Unindo um ponto da circunferência aos extremos do diâmetro, formamos um **triângulo retângulo**



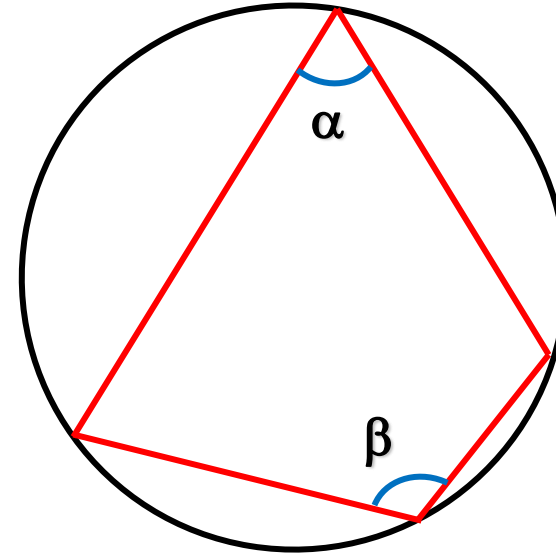
A medida da mediana de um triângulo retângulo relativa ao ângulo reto é sempre a metade da medida da hipotenusa

GEOMETRIA PLANA

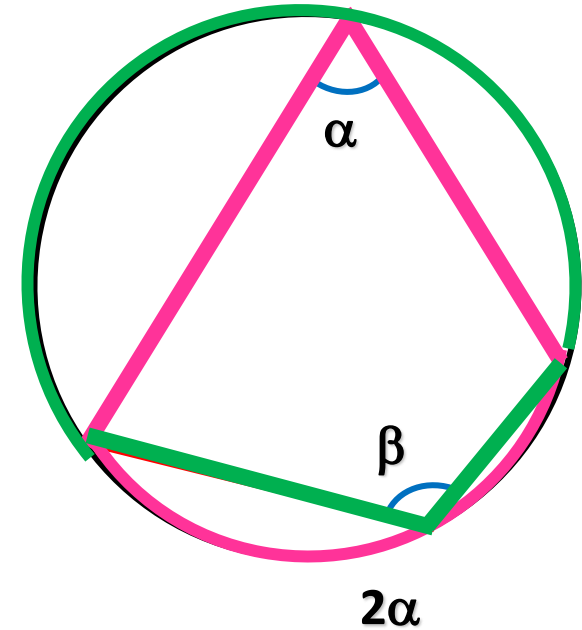
CONSEQUÊNCIA 2

Quadrilátero Inscritível

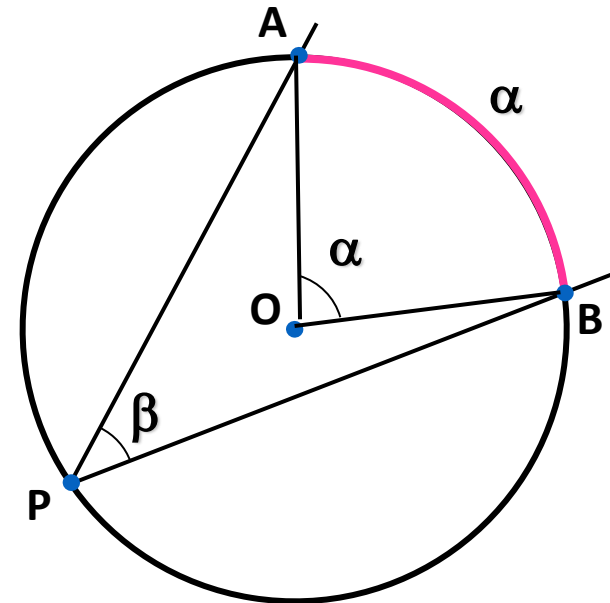
2β



$$\alpha + \beta = 180^\circ$$



$$2\alpha + 2\beta = 360^\circ$$

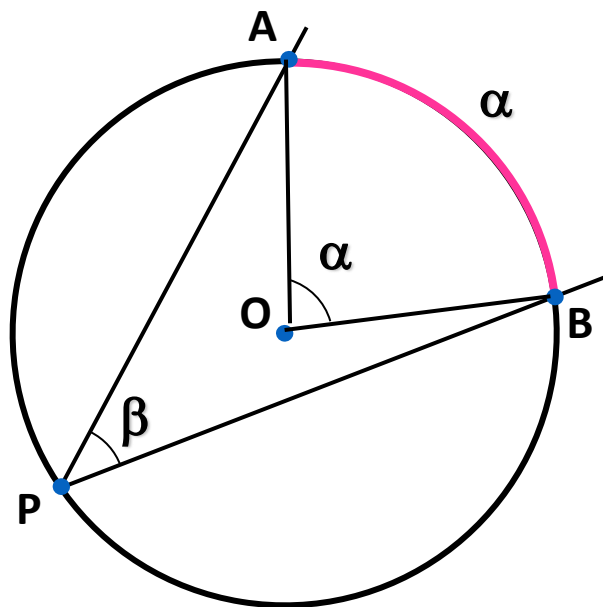


$$m(\text{APB}) = \beta = \frac{\alpha}{2}$$

GEOMETRIA PLANA



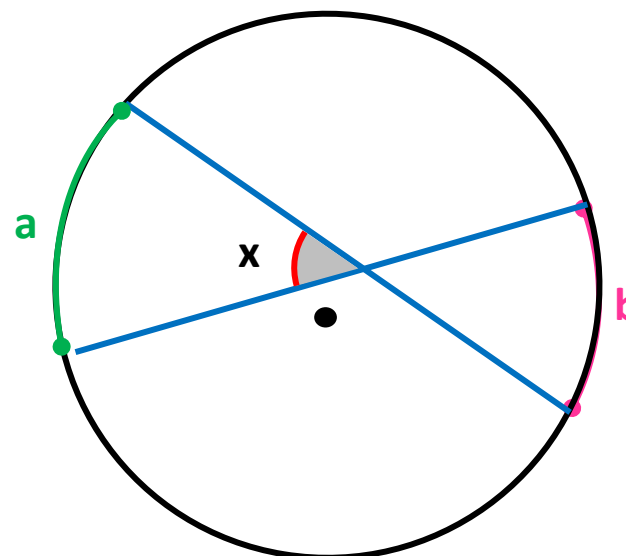
ÂNGULOS NUMA CIRCUNFERÊNCIA



$$m(\text{APB}) = \beta = \frac{\alpha}{2}$$

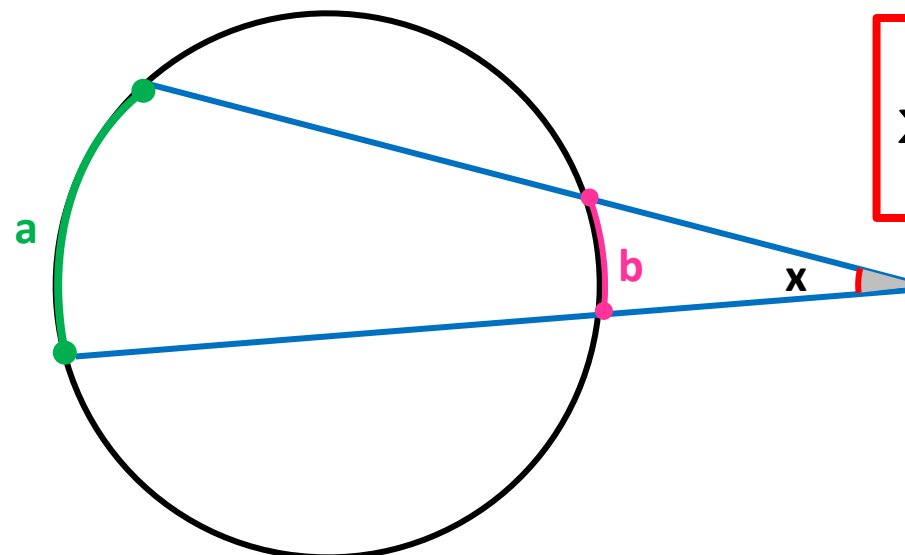
CONSEQUÊNCIA 3

ÂNGULO EXCÊNTRICO INTERIOR



$$x = \frac{a + b}{2}$$

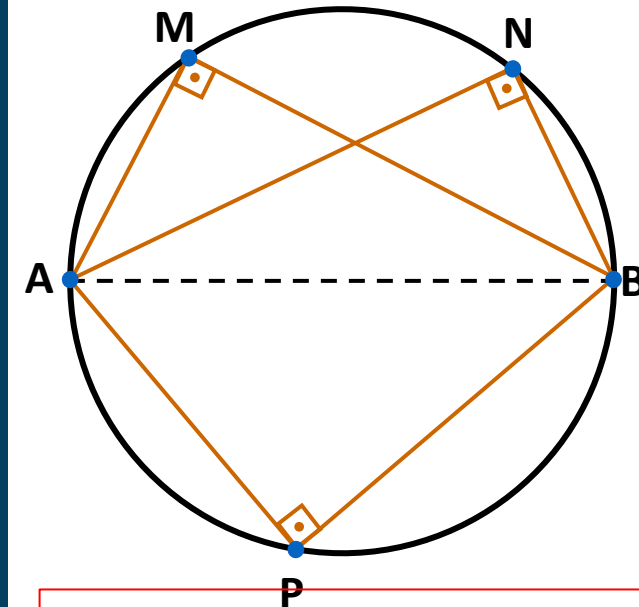
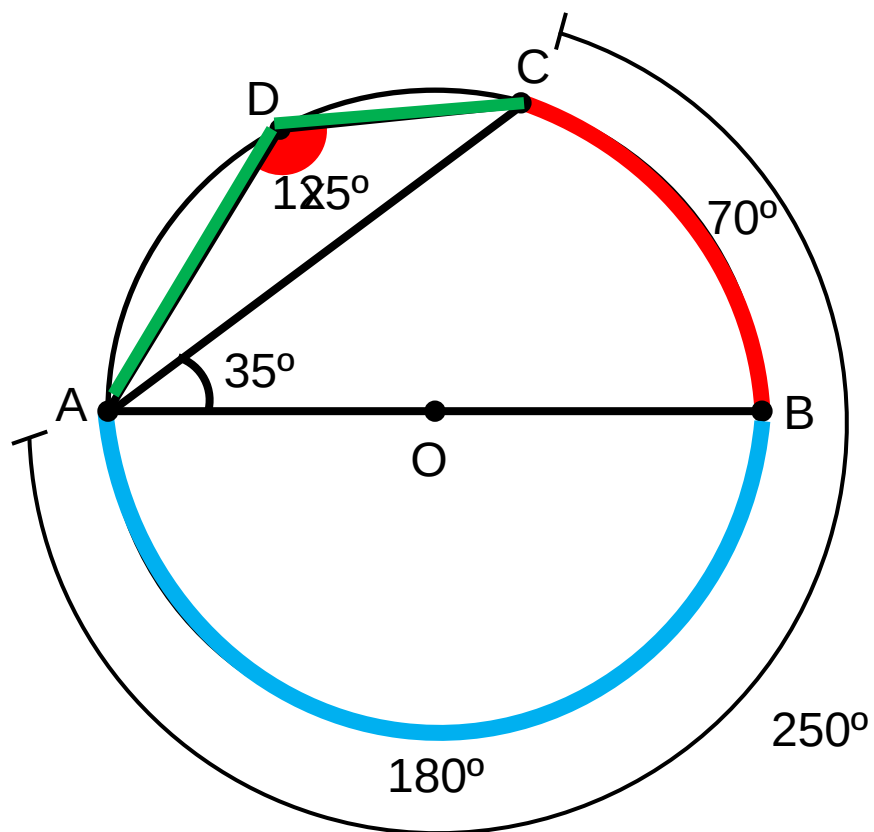
ÂNGULO EXCÊNTRICO EXTERIOR



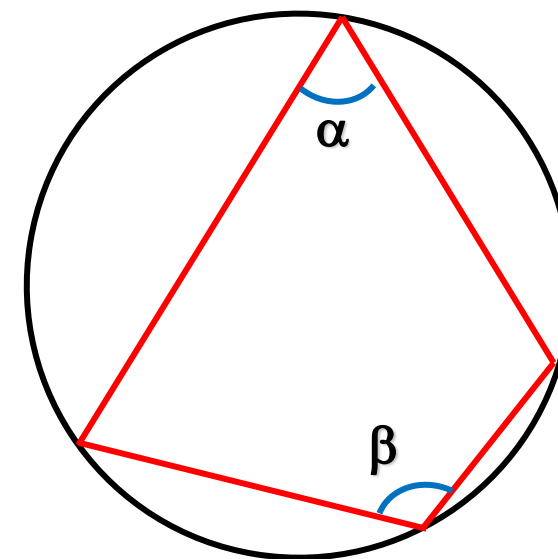
$$x = \frac{a - b}{2}$$

Exercícios em Sala

A medida do ângulo ADC inscrito na circunferência de centro O é:



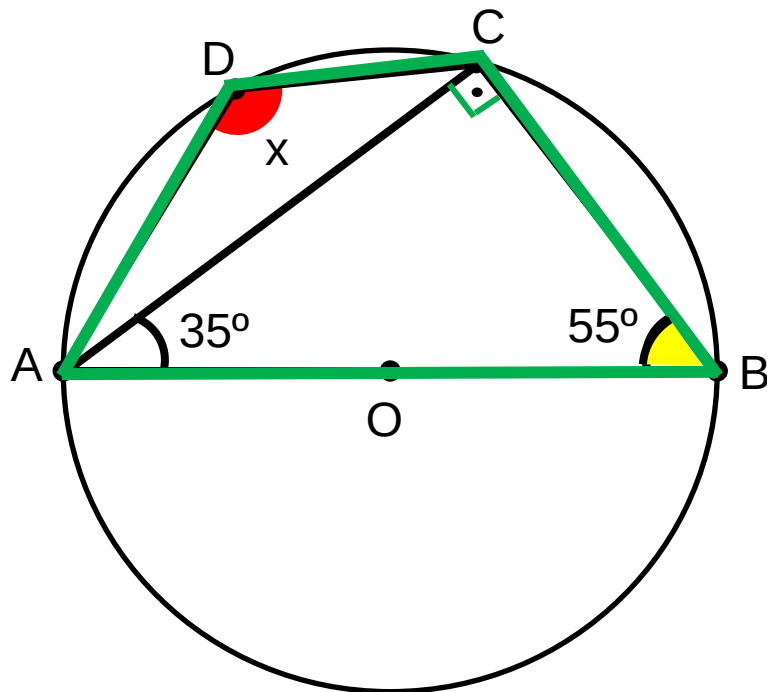
Unindo um ponto da circunferência aos extremos do diâmetro, formamos um **triângulo retângulo**



$$\alpha + \beta = 180^\circ$$

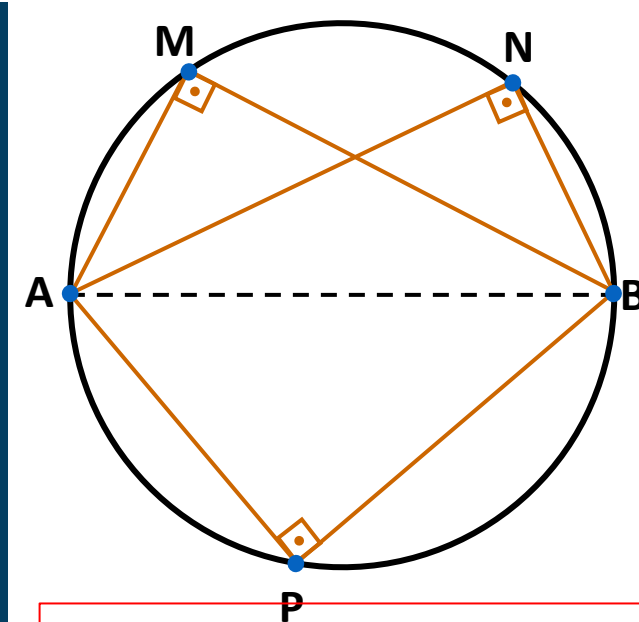
Exercícios em Sala

A medida do ângulo ADC inscrito na circunferência de centro O é:

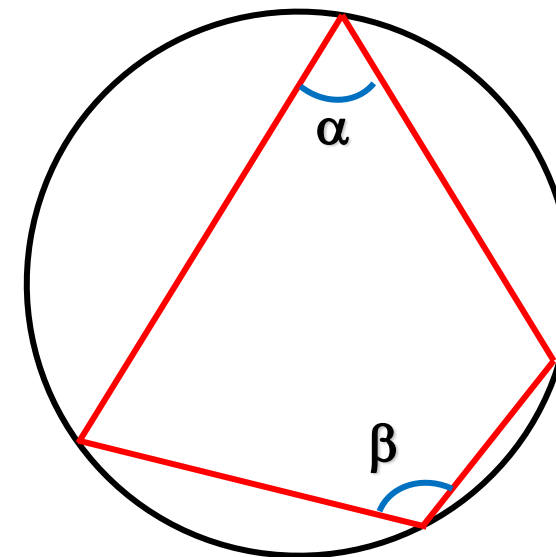


$$x + 55^\circ = 180^\circ$$

$$x = 125^\circ$$

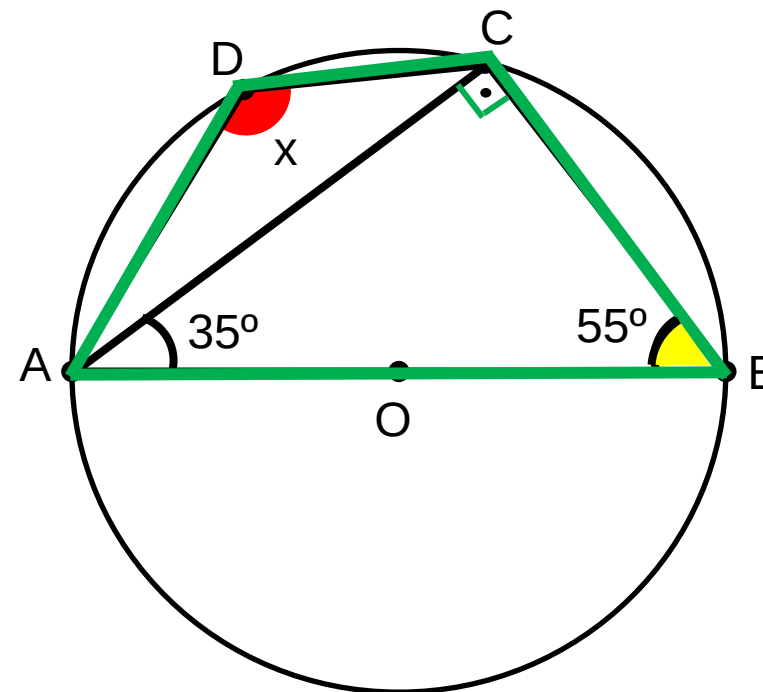
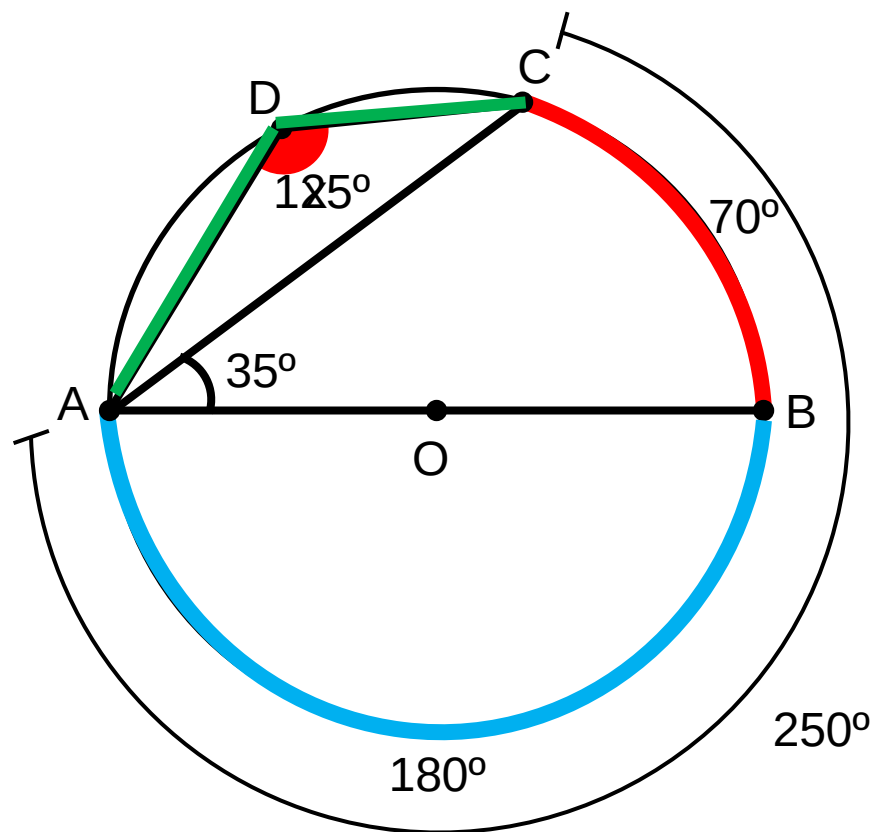


Unindo um ponto da circunferência aos extremos do diâmetro, formamos um **triângulo retângulo**



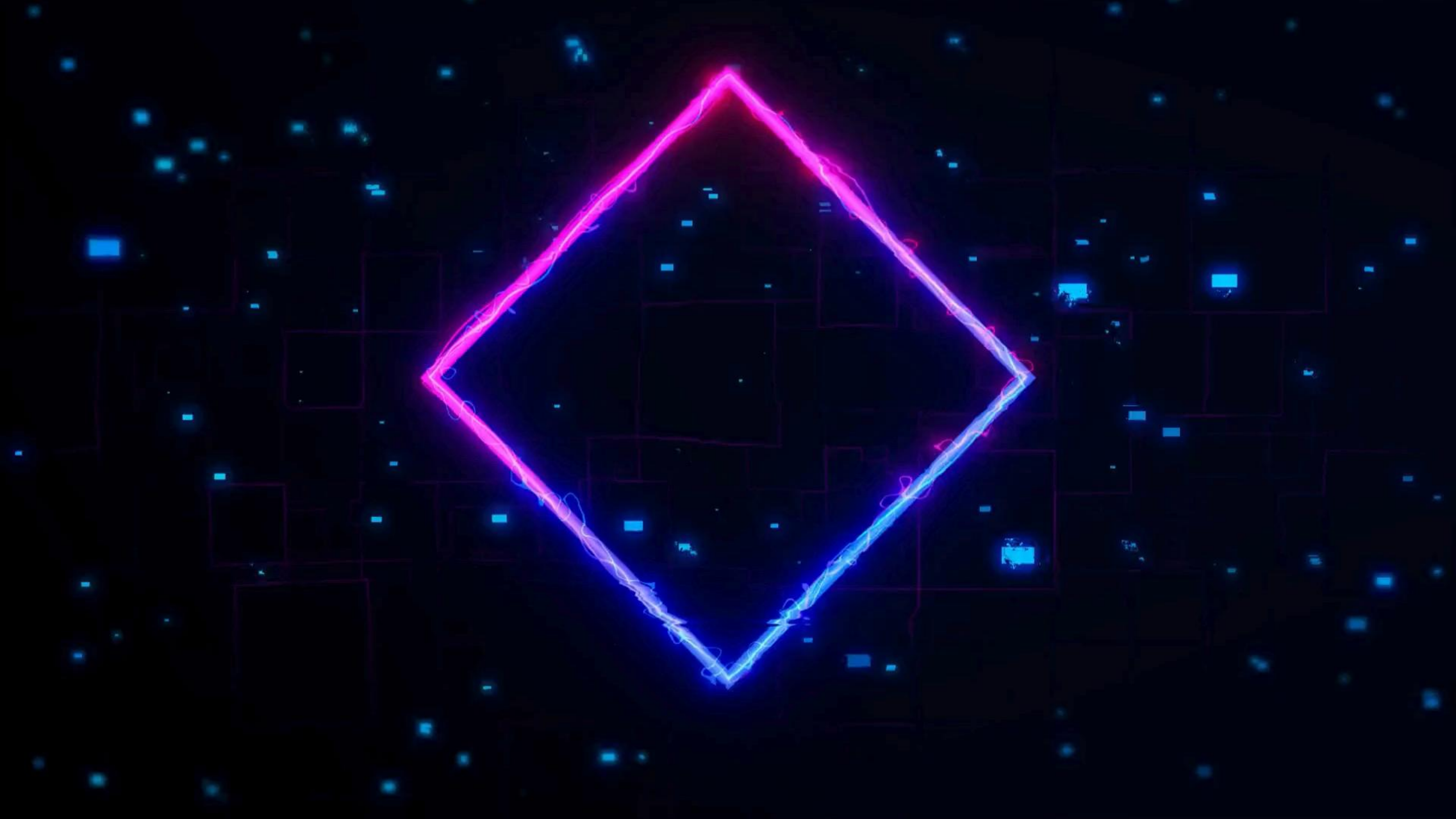
$$\alpha + \beta = 180^\circ$$

A medida do ângulo ADC inscrito na circunferência de centro O é:

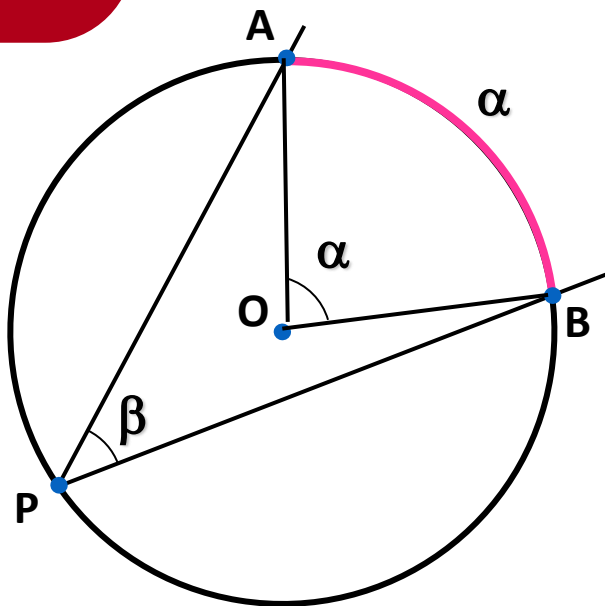


$$x + 55^\circ = 180^\circ$$

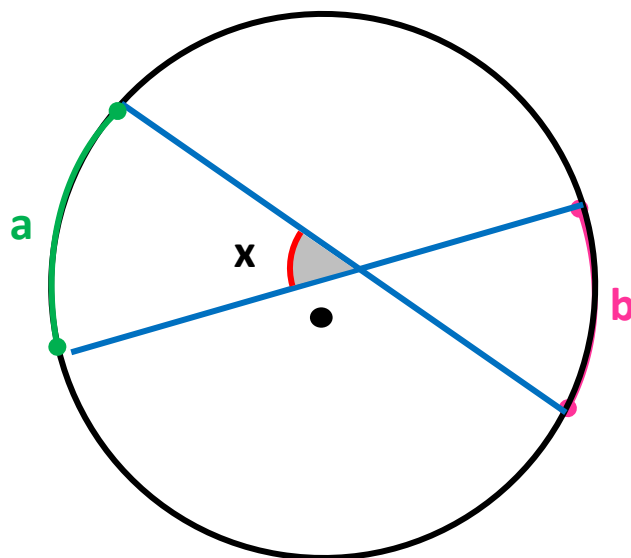
$$x = 125^\circ$$



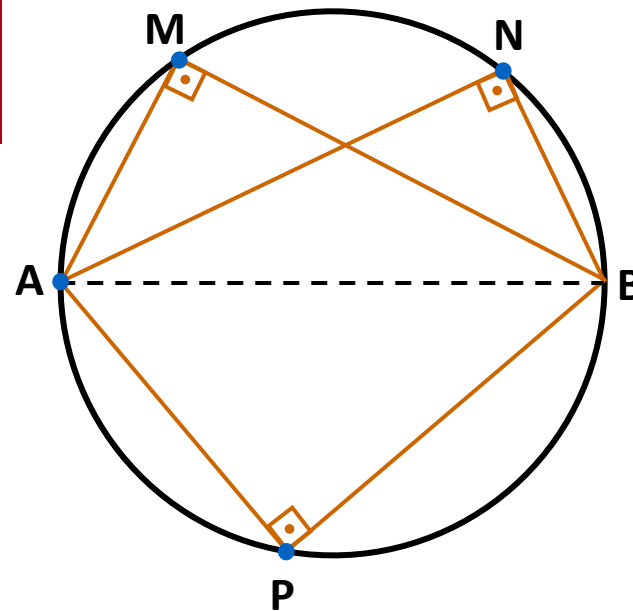
ÂNGULOS NUMA CIRCUNFERÊNCIA



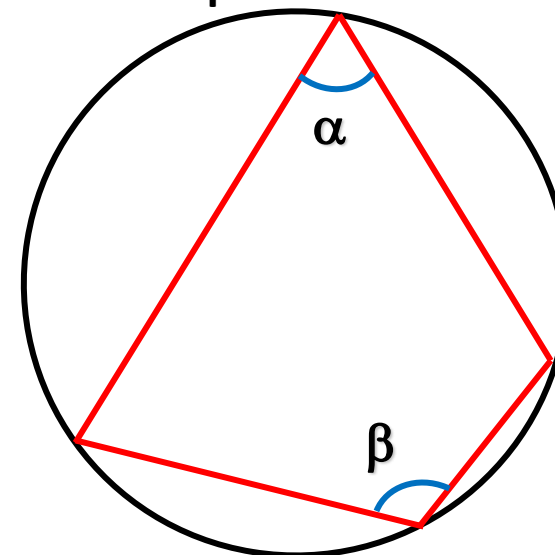
$$m(\widehat{APB}) = \beta = \frac{\alpha}{2}$$



$$x = \frac{a + b}{2}$$



Unindo um ponto da circunferência aos extremos do diâmetro, formamos um **triângulo retângulo**



Quadrilátero Inscritível

$$\alpha + \beta = 180^\circ$$