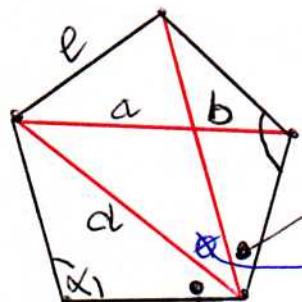


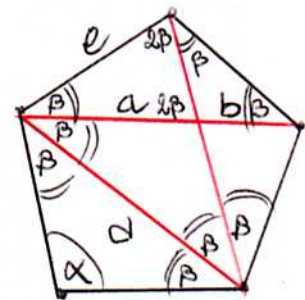
$$\alpha = 3\pi/5$$



$$(\pi - \alpha)/2 = \pi/5$$

$$\alpha - 2\frac{\pi}{5} = \frac{\pi}{5}$$

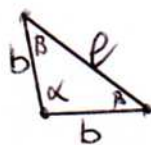
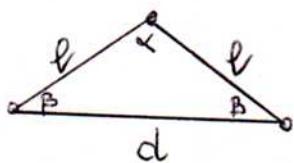
$$(\pi - \alpha)/2 = \pi/5$$



$$\alpha = 3\pi/5 \quad \beta = \pi/5$$

$$a + b = d$$

$$\boxed{a = e}$$



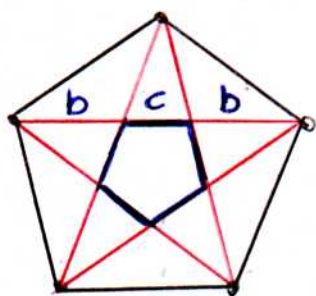
$$\frac{d}{2} = e \cos \beta$$

$$\frac{e}{2} = b \cos \beta$$

$$2e \cos \beta = 2 \quad \frac{1 + \sqrt{5}}{4} = \phi$$

$$\boxed{\frac{d}{e} = \phi}$$

$$\boxed{\frac{e}{b} = \phi}$$



$$b + c = a = e$$

$$c = e - b = e \frac{\phi - 1}{\phi}$$

$$\frac{e}{c} = \frac{\phi}{\phi - 1}$$

Propriedade de  $\phi$

$$\phi^2 - \phi - 1 = 0$$

$$\phi^2 - 1 = \phi$$

$$\phi^2 = \phi + 1$$

$$(\phi - 1)(\phi + 1) = \phi$$

$$\phi + 1 = \frac{\phi}{\phi - 1}$$

$$\boxed{\frac{e}{c} = \phi^2}$$

$$\phi^2 = \frac{\phi}{\phi - 1}$$