

N 56 PAG 144

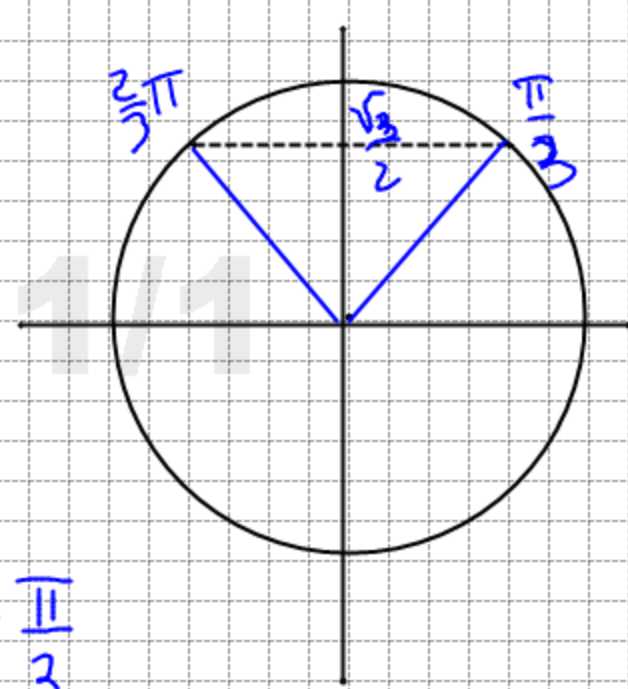
$$\text{sen} \left( \text{arcsen} \frac{\sqrt{3}}{2} \right)$$

$$\text{arcsen} \frac{\sqrt{3}}{2} = \alpha \Rightarrow \text{sen} \alpha = \frac{\sqrt{3}}{2}$$

$$\alpha = \frac{\pi}{3}$$

$$\alpha = \frac{2\pi}{3}$$

$$\text{sen} \frac{\pi}{3} = \frac{\sqrt{3}}{2}$$



N 57

$$\cos \left( \text{arcsen} \frac{3}{5} \right)$$

$$\text{arcsen} \frac{3}{5} = \alpha$$

$$\text{sen} \alpha = \frac{3}{5}$$

$$\text{sen}^2 \alpha = \frac{9}{25}$$

$$1 - \cos^2 \alpha = \frac{9}{25}$$

$$\cos^2 \alpha = 1 - \frac{9}{25}$$

$$\cos^2 \alpha = \frac{16}{25}$$

$$\cos \alpha = \pm \frac{4}{5} \Rightarrow \cos \alpha = \frac{4}{5}$$

perciò  $y = \text{arcsen} x \quad -\frac{\pi}{2} \leq x \leq \frac{\pi}{2}$

N 65

$$\cos(\text{arctg} x)$$

$\text{arctg} x = \alpha$

quindi  $\cos(\text{arctg} x) = \cos \alpha$

$\text{tg} \alpha = x$

$$\frac{\text{sen} \alpha}{\cos \alpha} = x$$

$$\frac{1 - \cos^2 \alpha}{\cos^2 \alpha} = x^2$$

$$1 - \cos^2 \alpha = x^2 \cos^2 \alpha$$

$$(x^2 + 1) \cos^2 \alpha = 1$$

$$\cos \alpha = \pm \sqrt{\frac{1}{1+x^2}}$$

$$\cos \alpha = \frac{1}{\sqrt{1+x^2}}$$

perciò  $y = \text{arctg} x$

$$D = \left\{ x \in \mathbb{R} \mid -\frac{\pi}{2} \leq x \leq \frac{\pi}{2} \right\}$$