

Lista 05 - Matemática Básica II - 2016.2

- Sem usar calculadora, determine em radianos:
 - $\text{sen}^{-1}\left(\frac{\sqrt{3}}{2}\right)$
 - $\text{cos}^{-1}(-1)$
 - $\text{tg}^{-1}(1)$
 - $\text{arccos}\left(-\frac{\sqrt{2}}{2}\right)$
 - $\text{sen}^{-1}\left(-\frac{1}{2}\right)$
 - $\text{arctg}(\sqrt{3})$
 - $\text{arcsen}(0)$
 - $\text{tg}^{-1}\left(-\frac{\sqrt{3}}{3}\right)$
 - $\text{sen}^{-1}(1)$
 - $\text{arccos}\left(\frac{\sqrt{3}}{2}\right)$
- Usando calculadora, determine em graus:
 - $\text{sen}^{-1}(0.1702)$
 - $\text{arccos}(0.8425)$
 - $\text{tg}^{-1}(0.3799)$
 - $\text{cos}^{-1}(-0.4664)$
 - $\text{arctg}(-2.748)$
 - $\text{sen}^{-1}(-0.7660)$
- Simplifique $4|\cos \theta|$ sendo $\theta = \text{sen}^{-1}\frac{x}{4}$ para algum número real x .
- Calcule sem usar calculadora
 - $\text{sen}\left(\text{sen}^{-1}\frac{3}{5}\right)$
 - $\text{cos}\left(\text{cos}^{-1}\frac{1}{2}\right)$
 - $\text{tg}\left(\text{tg}^{-1}\frac{1}{2}\right)$
 - $\text{sen}^{-1}(\text{sen}225^{\circ})$
 - $\text{sen}^{-1}\left(\frac{\pi}{3}\right)$
 - $\text{cos}^{-1}(\text{cos } 120^{\circ})$
 - $\text{cos}^{-1}\left(\text{cos } \frac{7\pi}{4}\right)$
 - $\text{tg}^{-1}(\text{tg}45^{\circ})$
 - $\text{tg}^{-1}\left(\frac{5\pi}{6}\right)$
- Determine usando calculadora
 - $\text{tg}\left(\text{sen}^{-1}\frac{3}{5}\right)$
 - $\text{sec}\left(\text{cos}^{-1}\frac{1}{\sqrt{5}}\right)$
 - $\text{sen}\left(\text{cos}^{-1}\frac{1}{2}\right)$
 - $\text{cotg}\left(\text{tg}^{-1}\frac{1}{2}\right)$

Respostas

- | | | | | |
|----------------------|----------------------|----------------------|---------------------|--------------------------|
| (a) $\frac{\pi}{3}$ | (g) 0 | (c) 20.8° | (e) $\frac{1}{2}$ | (i) $-\frac{\pi}{6}$ |
| (b) π | (h) $\frac{-\pi}{6}$ | (d) 117.8° | (d) -45° | |
| (c) $\frac{\pi}{4}$ | (i) $\frac{\pi}{2}$ | (e) -70.0° | (e) $\frac{\pi}{3}$ | 5. (a) $\frac{3}{4}$ |
| (d) $\frac{3\pi}{4}$ | (j) $\frac{\pi}{6}$ | (f) -50.0° | (f) 120° | (b) $\sqrt{5}$ |
| (e) $\frac{-\pi}{6}$ | | 3. $4 \cos \theta$ | (g) $\frac{\pi}{4}$ | (c) $\frac{\sqrt{3}}{2}$ |
| (f) $\frac{\pi}{3}$ | 2. (a) 9.8° | 4. (a) $\frac{3}{5}$ | (h) 45° | (d) 2 |
| | (b) 32.6° | (b) $\frac{1}{2}$ | | |