

# exercícios de fixação - Círcunferência trigonométrica - prof. Hipácia

1. Calcule:

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

$$\text{sen } \pi$$

$$\text{sen } 120^\circ$$

$$\text{sen } 150^\circ$$

$$\text{sen } 225^\circ$$

$$\text{sen } 300^\circ$$

$$\text{sen } 2\pi$$

$$\text{sen } 330^\circ$$

$$\text{cos } 330^\circ$$

$$\text{cos } 90^\circ$$

$$\text{cos } 120^\circ$$

$$\text{cos } \pi$$

$$\text{cos } 3\pi/2$$

$$\text{cos } 5\pi/4$$

$$\text{cos } 5\pi/3$$

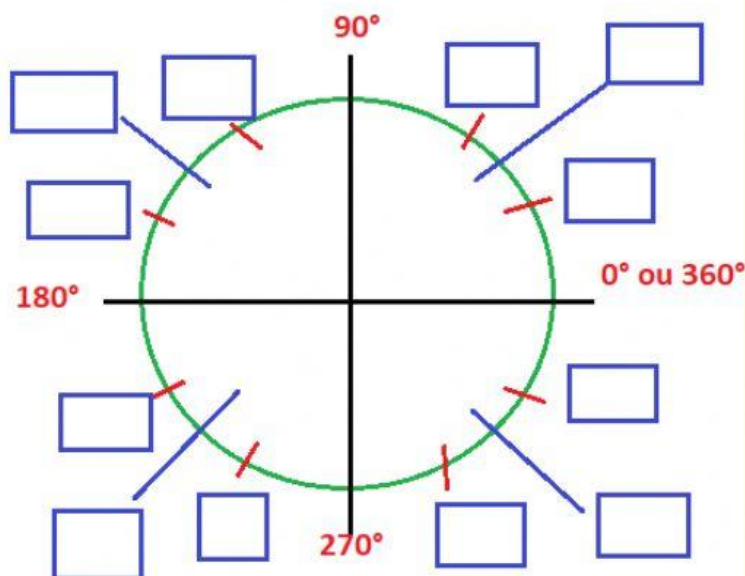
$$\text{cos } 0$$

$$\text{tg } 180^\circ$$

$$\text{tg } 210^\circ$$

$$\text{tg } 90^\circ$$

$$\text{tg } 240^\circ$$



arcos extremos quadrantes

|      | sen | cos | tg   |
|------|-----|-----|------|
| 0°   | 0   | 1   | 0    |
| 90°  | 1   | 0   | ñ ex |
| 180° | 0   | -1  | 0    |
| 270° | -1  | 0   | ñ ex |
| 360° | 0   | 1   | 0    |

| SE | TA | CO | +          |
|----|----|----|------------|
| 12 | 13 | 14 | QUADRANTES |

arcos notáveis

|     | 30°                  | 45°                  | 60°                  |
|-----|----------------------|----------------------|----------------------|
| sen | $\frac{1}{2}$        | $\frac{\sqrt{2}}{2}$ | $\frac{\sqrt{3}}{2}$ |
| cos | $\frac{\sqrt{3}}{2}$ | $\frac{\sqrt{2}}{2}$ | $\frac{1}{2}$        |
| tan | $\frac{\sqrt{3}}{3}$ | 1                    | $\sqrt{3}$           |

2. Resolva as equações seguintes, sendo  $U = [0, 2\pi[$

$$\text{sen } x = 1/2$$

$$\text{cos } x = 0$$

$$\text{cos } x = -\frac{1}{2}$$

$$\text{sen } x = 0$$

$$\text{cos } x = \frac{\sqrt{2}}{2}$$

$$6 \cdot \text{cos } x + 6 = 0$$

$$\text{sen } x = -1$$

$$\text{sen } x = -\sqrt{2}/2$$

$$\text{cos } x = 1$$

$$4 \cdot \text{cos}^2 x = 3$$

$$\text{sen } x = 2$$

$$4 \text{sen}^2 x - 3 = 0$$

3. Calcule o valor de cada expressão seguinte:

$$\text{a) } y = \frac{\text{cos } 90^\circ - \text{cos } 180^\circ}{\text{cos } 60^\circ \cdot \text{cos } 0^\circ + \text{cos } 90^\circ}$$

$$\text{b) } x = \text{cos } \frac{\pi}{4} \cdot \text{cos } \frac{\pi}{2} + \text{cos } \pi \cdot \text{cos } \frac{\pi}{6}$$

$$\text{c) } y = \frac{\text{sen } 0 + \text{sen } \frac{\pi}{2} - \text{sen } \frac{3\pi}{2}}{2 \cdot \text{sen } \frac{\pi}{6}}$$