

18. Os valores de x entre 0 e 2π que satisfazem a igualdade $\text{sen}2x = \text{sen}x$ são

- A) $\frac{\pi}{3}, \frac{2\pi}{3}, \frac{4\pi}{3}$.
- B) $\frac{\pi}{4}, \frac{2\pi}{3}, \frac{4\pi}{5}$.
- C) $\frac{\pi}{3}, \pi, \frac{5\pi}{3}$.
- D) $\frac{\pi}{5}, \frac{2\pi}{3}, \frac{4\pi}{7}$.

Assunto: Trigonometria

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

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

$$2 \cdot \text{sen } x \cdot \cos x - \text{sen}x = 0$$

$$\text{sen } x \cdot (2 \cdot \cos x - 1) = 0$$

$$\text{sen } x = 0 \text{ ou } 2 \cdot \cos x - 1 = 0$$

$$\text{sen } x = 0 \text{ ou } \cos x = \frac{1}{2}$$

$$x = \pi \text{ ou } x = \frac{\pi}{3} \text{ ou } x = \frac{5\pi}{3}$$

Item: C