

A) ESPRESSIONI (CALCOLARE IL VALORE)

$$1) \left(\cos \frac{5}{4} \pi + \sin \frac{5}{4} \pi \right) \cdot \left(\sin \frac{5}{6} \pi \right)^{\cos \pi}$$

$$2) \left(\sin \frac{2}{3} \pi + \cos \frac{2}{3} \pi \right) \left(\sin \frac{\pi}{3} + \cos \frac{5}{3} \pi \right)$$

$$3) \left(\cos \frac{\pi}{4} \cdot \sin \frac{\pi}{4} \right)^{\operatorname{tg} \frac{\pi}{4}} + \cos \frac{4}{3} \pi - \sin \pi \cdot \operatorname{tg} \pi$$

$$4) \cos 0 \cdot \left(\sin \frac{5}{6} \pi - \sin 0 \right) + \cos \pi \left(\cos \frac{5}{6} \pi - \sin \pi \right) + \operatorname{tg} \frac{2}{3} \pi + \left(\cos \frac{\pi}{3} \right)^{\sin \frac{\pi}{2}}$$

SOLUTION

$$1) \left(-\frac{\sqrt{2}}{2} - \frac{\sqrt{2}}{2} \right) \cdot \left(\frac{1}{2} \right)^{-1} = -\sqrt{2} \cdot 2 = -2\sqrt{2}$$

$$2) \left(\frac{1}{2} - \frac{\sqrt{3}}{2} \right) \left(\frac{1}{2} + \frac{\sqrt{3}}{2} \right) = \frac{1}{4} - \frac{3}{4} = -\frac{1}{2}$$

$$3) \left(\frac{\sqrt{2}}{2} \cdot \frac{\sqrt{2}}{2} \right)^1 + \frac{1}{2} - 0 \cdot 0 = \frac{1}{2} - \frac{1}{2} = 0$$

$$4) 1 \cdot \left(\frac{1}{2} - 0 \right) + (-1) \cdot \left(-\frac{\sqrt{3}}{2} - 0 \right) + (-\sqrt{3}) \cdot \left(\frac{1}{2} \right)^1 = \\ = \frac{1}{2} + \frac{\sqrt{3}}{2} - \frac{\sqrt{3}}{2} = \frac{1}{2}$$