

$$\textcircled{1} \frac{2\pi \cdot 6}{4} + 2\pi \cdot 3$$

$$\frac{4 \cdot 72\pi}{4 \cdot 4\pi} + 6\pi$$

$$1\pi + 6\pi = \boxed{7\pi}$$

$$\textcircled{2} \frac{\sin(1110^\circ) + \cos(2\pi)}{\sin\left(\frac{4\pi}{3}\right)}$$

$$\frac{\sin\left(\frac{37\pi}{6}\right) + 1}{\sin\left(\frac{4\pi}{3}\right)} = \frac{1 + 1}{\sin\left(\frac{4\pi}{3}\right)}$$

$$\frac{2}{\sin\left(\frac{4\pi}{3}\right)} = \frac{2}{2 \sin\left(\frac{4\pi}{3}\right)} = \frac{2}{2 \cdot \left(-\frac{\sqrt{3}}{2}\right)} = \frac{-2}{\sqrt{3}} = \boxed{-\frac{2}{\sqrt{3}}}$$

$$(3) \quad A = \frac{\pi}{3} = \frac{180}{3} = 60$$

$$A: \sin 720 + \cos 60$$

$$\sin 420 + \sin 480$$

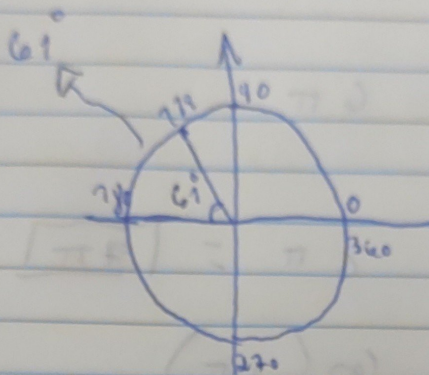
$$\sin 420 = \sin 60^\circ$$

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

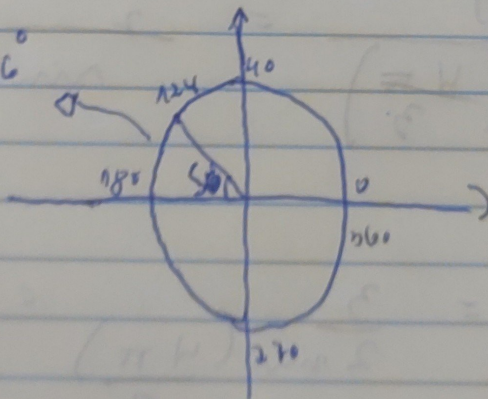
$$\cos 480 = \cos 120^\circ$$

$$\frac{\sqrt{3-1}}{2}$$

$$\begin{array}{r} 839 \\ -220 \\ \hline 619 \end{array} \quad \begin{array}{l} 360 \\ 2 \end{array} = + \sin 119^\circ$$



$$\begin{array}{r} 1204 \\ 1080 \\ \hline 124 \end{array} \quad \begin{array}{l} 360 \\ 2 \end{array} = + \sin 124^\circ$$



Porém podemos ver nos desenhos, o seno de 119° é maior, pois o sen ângulo de abertura é maior.