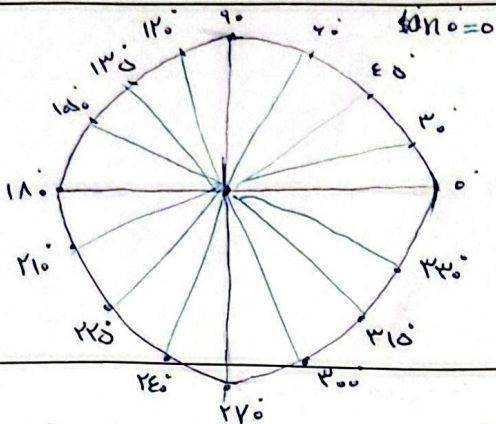




$\tan 0^\circ = 0$	$\tan 30^\circ = \frac{\sqrt{3}}{3}$	$\tan 150^\circ = -\frac{\sqrt{3}}{3}$	$\tan 180^\circ = 0$
$\tan 45^\circ = 1$	$\tan 60^\circ = \sqrt{3}$	$\tan 135^\circ = -1$	$\tan 90^\circ = \infty$
$\tan 90^\circ = \infty$	$\tan 120^\circ = -\sqrt{3}$	$\tan 30^\circ = \frac{\sqrt{3}}{3}$	$\tan 45^\circ = 1$
$\tan 135^\circ = -1$	$\tan 150^\circ = -\frac{\sqrt{3}}{3}$	$\tan 60^\circ = \sqrt{3}$	$\tan 120^\circ = -\sqrt{3}$

الف) $\sin \frac{\pi}{6} + \cos \frac{\pi}{6} + 2 \tan \frac{\pi}{6} = \frac{1}{2} + \left(-\frac{1}{2}\right) + (-\frac{\sqrt{3}}{3}) = -\frac{\sqrt{3}}{3}$

ب) $-\cos \frac{\pi}{6} + \sin \frac{\pi}{6} - 3 \sin \frac{\pi}{6} = -\frac{\sqrt{3}}{2} + \frac{1}{2} - \frac{3}{2} = -\frac{\sqrt{3}}{2} - 1$

ج) $\cot \frac{\pi}{6} + 3 \cot \frac{\pi}{6} - 2 \tan \frac{\pi}{6} = -\frac{\sqrt{3}}{3} + \sqrt{3} + 2 \frac{\sqrt{3}}{3} = \sqrt{3} + \frac{\sqrt{3}}{3}$

د) $\cos(\sin \pi) + \sin(\pi \cos \frac{\pi}{6}) = 1 + \frac{\sqrt{3}}{2}$

$$a^2 + \varepsilon a = 2a + a + 2 \rightarrow a^2 + a - 2 = 0 \rightarrow \begin{cases} a = -2 \text{ (as } 0) \\ a = 1 \end{cases}$$

$f(1) \rightarrow 1$
 $1 = a$

$$|n+1| \geq 2 \rightarrow \begin{cases} n+1 \geq 2 \rightarrow n \geq 1 \\ n+1 \leq -2 \rightarrow n \leq -3 \end{cases}$$

if $n = -3 \Rightarrow 1 - b = a - 2 \rightarrow a + b = 2$

الف) $y = \frac{1}{x^3 - \varepsilon x^2} \Rightarrow x^2(x - \varepsilon) \neq 0 \rightarrow x \in \mathbb{R} - \{0, \varepsilon\}$

ب) $y = \frac{1}{2x^3 + \varepsilon x^2 + 2x + \varepsilon} \Rightarrow \begin{cases} 2x^3 + \varepsilon x^2 + 2x + \varepsilon \neq 0 \\ (1+x^2)(2x+\varepsilon) \neq 0 \end{cases} \rightarrow x \in \mathbb{R} - \{-\frac{\varepsilon}{2}\}$