

Giải bài 5 trang 156 sgk toán Đại Số lớp 10

Đề bài:

Không sử dụng máy tính, hãy tính

a) $\cos \frac{22\pi}{3}$

b) $\sin \frac{23\pi}{4}$

c) $\sin \frac{25\pi}{3} - \tan \frac{10\pi}{3}$

d) $\cos^2 \frac{\pi}{8} - \sin^2 \frac{\pi}{8}$

Đáp án:

a) $\cos \frac{22\pi}{3} = \cos(8\pi - \frac{2\pi}{3})$

$= \cos(-\frac{2\pi}{3}) = \cos(\frac{2\pi}{3})$

$= -\cos \frac{\pi}{3} = -\frac{1}{2}$

b) $\sin \frac{23\pi}{4} = \sin(6\pi - \frac{\pi}{4})$

$= \sin(-\frac{\pi}{4}) = -\sin(\frac{\pi}{4}) = -\frac{\sqrt{2}}{2}$

c) $\sin \frac{25\pi}{3} - \tan \frac{10\pi}{3}$

$= \sin(8\pi + \frac{\pi}{3}) - \tan(3\pi + \frac{\pi}{3})$

$= \sin \frac{\pi}{3} - \tan \frac{\pi}{3} = \frac{\sqrt{3}}{2} - \sqrt{3}$

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

d) $\cos^2 \frac{\pi}{8} - \sin^2 \frac{\pi}{8} = \cos \frac{\pi}{4} = \frac{\sqrt{2}}{2}$.