sicolo

answers

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(1) $\sin\theta = -1$ $\left(\frac{\pi}{2} \leqq \theta \leqq \frac{3\pi}{2}\right)$

$\theta = \frac{3\pi}{2}$

(2) $\tan\theta = \frac{\sqrt{3}}{3}$ $\left(-\frac{\pi}{2} \leqq \theta \leqq \frac{\pi}{2}\right)$

$\theta = \frac{\pi}{6}$

(3) $\cos\left(-\frac{5\pi}{6}\right)$

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

(4) $\sin\frac{\pi}{4}$

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

(5) $\sin\theta = \frac{\sqrt{2}}{2}$ $\left(\frac{\pi}{2} \leqq \theta \leqq \frac{3\pi}{2}\right)$

$\theta = \frac{3\pi}{4}$

(6) $\cos\left(-\frac{2\pi}{3}\right)$

$= -\frac{1}{2}$

(7) $\log_4 4\sqrt{2}$

$= \frac{5}{4}$

(8) $\sin\theta = \frac{\sqrt{2}}{2}$ $\left(-\frac{\pi}{2} \leqq \theta \leqq \frac{\pi}{2}\right)$

$\theta = \frac{\pi}{4}$

(9) $\log_{\frac{1}{2\sqrt{2}}} \frac{1}{4\sqrt{2}}$

$= \frac{5}{3}$

(10) $\cos\frac{\pi}{2}$

$= 0$

(11) $\cos\theta = -1$ $(\pi \leqq \theta \leqq 2\pi)$

$\theta = \pi$

(12) $\tan\theta = \frac{\sqrt{3}}{3}$ $\left(\frac{\pi}{2} \leqq \theta \leqq \frac{3\pi}{2}\right)$

$\theta = \frac{7\pi}{6}$

(13) $\log_{16} 4$

$= \frac{1}{2}$

(14) $\log_{\frac{1}{125\sqrt{5}}} \frac{1}{5}$

$= \frac{2}{7}$

(15) $\sin\theta = -\frac{1}{2}$ $\left(\frac{\pi}{2} \leqq \theta \leqq \frac{3\pi}{2}\right)$

$\theta = \frac{7\pi}{6}$

(16) $\sin\left(-\frac{2\pi}{3}\right)$

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

(17) $\log_{\frac{\sqrt{3}}{3}} \frac{1}{27}$

$= 6$

(18) $\log_{27} 9\sqrt{3}$

$= \frac{5}{6}$

(19) $\sin(-\pi)$

$= 0$

(20) $\sin\theta = \frac{\sqrt{2}}{2}$ $\left(\frac{\pi}{2} \leqq \theta \leqq \frac{3\pi}{2}\right)$

$\theta = \frac{3\pi}{4}$

(21) $\cos\theta = -1$ $(\pi \leqq \theta \leqq 2\pi)$

$\theta = \pi$

(22) $\cos\theta = 1$ $(-\pi \leqq \theta \leqq 0)$

$\theta = 0$

(23) $\log_{\frac{1}{8}} \frac{1}{2}$

$= \frac{1}{3}$

(24) $\cos\frac{4\pi}{3}$

$= -\frac{1}{2}$

(25) $\sin\theta = \frac{\sqrt{3}}{2}$ $\left(\frac{3\pi}{2} \leqq \theta \leqq \frac{5\pi}{2}\right)$

$\theta = \frac{7\pi}{3}$

(26) $\tan\theta = -\frac{\sqrt{3}}{3}$ $\left(-\frac{\pi}{2} \leqq \theta \leqq \frac{\pi}{2}\right)$

$\theta = -\frac{\pi}{6}$

(27) $\cos\frac{\pi}{6}$

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

(28) $\sin\frac{\pi}{6}$

$= \frac{1}{2}$

(29) $\cos\theta = -\frac{\sqrt{3}}{2}$ $(-\pi \leqq \theta \leqq 0)$

$\theta = -\frac{5\pi}{6}$

(30) $\sin\theta = -\frac{1}{2}$ $\left(-\frac{\pi}{2} \leqq \theta \leqq \frac{\pi}{2}\right)$

$\theta = -\frac{\pi}{6}$

(31) $\log_8 \frac{\sqrt{2}}{4}$

$= -\frac{1}{2}$

(32) $\cos\frac{11\pi}{6}$

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

(33) $\cos\frac{3\pi}{4}$

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

(34) $\log_{\frac{1}{4\sqrt{2}}} 16$

$= -\frac{8}{5}$

(35) $\cos\theta = \frac{\sqrt{3}}{2}$ $(0 \leqq \theta \leqq \pi)$

$\theta = \frac{\pi}{6}$

(36) $\log_{\frac{1}{27\sqrt{3}}} \frac{1}{27}$

$= \frac{6}{7}$

(37) $\tan\theta = \frac{\sqrt{3}}{3}$ $\left(-\frac{\pi}{2} \leqq \theta \leqq \frac{\pi}{2}\right)$

$\theta = \frac{\pi}{6}$

(38) $\cos\left(-\frac{\pi}{4}\right)$

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

(39) $\tan\theta = \sqrt{3}$ $\left(-\frac{\pi}{2} \leqq \theta \leqq \frac{\pi}{2}\right)$

$\theta = \frac{\pi}{3}$

(40) $\sin\frac{5\pi}{3}$

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

This print is programmed by SANO Satoshi.
My favorite English saying is that
Virtue is its own reward.