

Algebra 3 Assignment # 15

Evaluate each of the following numbers please.

(1) $\sin^{-1}\left(-\frac{1}{2}\right)$

(9) $\cot^{-1}\left(\frac{\sqrt{3}}{3}\right)$

(2) $\cos^{-1}\left(-\frac{1}{2}\right)$

(10) $\sec^{-1}(-1)$

(3) $\tan^{-1}(-1)$

(11) $\sin\left(\sin^{-1}\left(\frac{2}{3}\right)\right)$

(4) $\cot^{-1}(-\sqrt{3})$

(12) $\sin\left(2\cos^{-1}\left(-\frac{4}{5}\right)\right)$

(5) $\sec^{-1}(-\sqrt{2})$

(13) $\cos\left(2\tan^{-1}\left(-\frac{2}{3}\right)\right)$

(6) $\csc^{-1}\left(\frac{2}{\sqrt{3}}\right)$

(14) $\cos\left(\frac{\pi}{2} - \sin^{-1}\left(\frac{5}{13}\right)\right)$

(7) $\sin^{-1}(-1)$

(15) $\sin\left(\sin^{-1}\left(\frac{1}{3}\right) + \cos^{-1}\left(\frac{1}{3}\right)\right)$

(8) $\tan^{-1}(0)$

(16) $\cos\left(\cos^{-1}\left(\frac{5}{13}\right) - \cos^{-1}\left(\frac{3}{5}\right)\right)$

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Answers

(1) $-\frac{\pi}{6}$

(9) $\frac{\pi}{3}$

(2) $\frac{2\pi}{3}$

(10) π

(3) $-\frac{\pi}{4}$

(11) $\frac{2}{3}$

(4) $\frac{5\pi}{6}$

(12) $-\frac{24}{25}$

(5) $\frac{3\pi}{4}$

(13) $\frac{5}{13}$

(6) $\frac{\pi}{3}$

(14) $\frac{5}{13}$

(7) $-\frac{\pi}{2}$

(15) 1

(8) 0

(16) $\frac{63}{65}$