

Evaluating Trigonometric Functions

A) Evaluate each function at the specified value.

1) $f(x) = \sin 2x - 3\cos x$; $x = \pi$

2) $f(x) = \operatorname{cosec} x + \tan 2x$; $x = \frac{\pi}{2}$

B) Evaluate each function.

1) $f(x) = \sec^2 x \cdot \cot^2 x$; find $f\left(\frac{3\pi}{4}\right)$

2) $f(x) = \frac{\tan^3 x}{4\sin x}$; find $f\left(-\frac{\pi}{6}\right)$

C) If $f(x) = 4\sin x + 3\sec x$; find the following.

1) $f(0) =$ _____

2) $f\left(-\frac{2\pi}{3}\right) =$ _____

3) $f\left(-\frac{7\pi}{6}\right) =$ _____

4) $f\left(\frac{\pi}{4}\right) =$ _____

D) If $f(x) = \tan x \cdot \cot^2 x$; find the following.

1) $2f\left(\frac{2\pi}{3}\right) \times f\left(-\frac{\pi}{3}\right) =$ _____

2) $5f\left(\frac{5\pi}{4}\right) - 3f\left(\frac{7\pi}{4}\right) =$ _____

3) $f\left(\frac{\pi}{4}\right) + f\left(\frac{\pi}{6}\right) =$ _____

4) $\frac{6f\left(\frac{5\pi}{6}\right)}{f\left(-\frac{2\pi}{3}\right)} =$ _____

E) What is the value of $f\left(-\frac{7\pi}{4}\right)$, if $f(x) = 2\sin x - \tan x$?

i) $\sqrt{2} + 1$

ii) $-\sqrt{2} - 1$

iii) $\sqrt{2} - 1$

iv) $\sqrt{2} + 3$

Evaluating Trigonometric Functions

A) Evaluate each function at the specified value.

1) $f(x) = \sin 2x - 3\cos x$; $x = \pi$

3

2) $f(x) = \operatorname{cosec} x + \tan 2x$; $x = \frac{\pi}{2}$

1

B) Evaluate each function.

1) $f(x) = \sec^2 x \cdot \cot^2 x$; find $f\left(\frac{3\pi}{4}\right)$

2

2) $f(x) = \frac{\tan^3 x}{4\sin x}$; find $f\left(-\frac{\pi}{6}\right)$

 $\frac{\sqrt{3}}{18}$ C) If $f(x) = 4\sin x + 3\sec x$; find the following.

1) $f(0) =$ 3

2) $f\left(-\frac{2\pi}{3}\right) =$ $-2(\sqrt{3} + 3)$

3) $f\left(-\frac{7\pi}{6}\right) =$ $2(1 - \sqrt{3})$

4) $f\left(\frac{\pi}{4}\right) =$ $5\sqrt{2}$

D) If $f(x) = \tan x \cdot \cot^2 x$; find the following.

1) $2f\left(\frac{2\pi}{3}\right) \times f\left(-\frac{\pi}{3}\right) =$ $\frac{2}{3}$

2) $5f\left(\frac{5\pi}{4}\right) - 3f\left(\frac{7\pi}{4}\right) =$ 8

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

4) $\frac{6f\left(\frac{5\pi}{6}\right)}{f\left(-\frac{2\pi}{3}\right)} =$ -18

E) What is the value of $f\left(-\frac{7\pi}{4}\right)$, if $f(x) = 2\sin x - \tan x$?

i) $\sqrt{2} + 1$

ii) $-\sqrt{2} - 1$



$\sqrt{2} - 1$

iv) $\sqrt{2} + 3$