Quiz 8

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Question 1 *Which of the following values of b satisfies the equation $\sin(b-x) = \cos(x)$?*

A $b = \pi/2$.

B $b = -\pi$.

C $2\pi + x$.

D $-\pi/2$.

Question 2 *What is the value of the expression $\cos^{-1}\left(\frac{1}{2}\right)$?*

A $\pi/6$.

B $-\pi/6$.

C $\pi/4$.

D $\pi/3$.

Question 3 *Why do we restrict the range of the inverse trigonometric functions?*

A *The trig functions, defined on all real numbers, are not one-to-one.*

B *It's just a matter of convenience.*

C *The trig functions, as defined, are not actually "functions."*

D *The restricted range makes the inverse trig functions easier to calculate using algebra.*

Question 4 *At what values of x does the function $y = \tan(x)$ have asymptotes?.*

A *At $x = k\pi$ for all integers k.*

B *At* $x = \frac{(2k+1)\pi}{2}$ *for all integers* k.

C *At* $x = \pm\frac{\pi}{2}$.

D *At any value of* x *such that* $\sin(x) = 0$.