

EQUATIONS INVOLVING INVERSE TRIGONOMETRIC FUNCTIONS

1. Solve each equation for x .

a. $y = 8 \tan x$

b. $y = 3 \cos 4x - 8$

c. $y = 3 \sin(x + 5)$

d. $y = 2 \csc \frac{x}{2} - \sqrt{3}$

2. Solve each equation for exact solutions.

a. $6 \arccos x = 5\pi$

b. $4\pi + 4 \tan^{-1} y = \pi$

c. $\arcsin\left(y - \frac{\pi}{3}\right) = \frac{\pi}{6}$

d. $\sin^{-1} x + \tan^{-1} \sqrt{3} = \frac{2\pi}{3}$

e. $\arcsin 2x + \arcsin x = \frac{\pi}{2}$