Worksheet 3.1

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Find the exact value of the expression.

1) $\cos^{-1}\dfrac{\sqrt{2}}{2}$

2) $\sin^{-1}(-0.5)$

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

Use a calculator to find the value of the expression rounded to two decimal places.

4) $\cos^{-1}\left(\dfrac{3}{8}\right)$

5) $\sin^{-1}\left(\dfrac{\sqrt{2}}{5}\right)$

Find the exact value of the expression. Do not use a calculator.

6) $\cos[\cos^{-1}(-0.9372)]$

7) $\sin^{-1}\left[\sin\left(\dfrac{5\pi}{7}\right)\right]$

8) $\tan^{-1}\left[\tan\left(-\dfrac{\pi}{8}\right)\right]$

Find the inverse function f^{-1} of the function f.

9) $f(x) = -9\cos(6x)$

Find the exact solution of the equation.

10) $3\sin^{-1}x = \pi$

11) $7\sin^{-1}x - 4\pi = 5\sin^{-1}x - 5\pi$

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

7) _____

8) _____

9) _____

10) _____

11) _____