

6.6 Find the exact function value.

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

1) _____

Evaluate or simplify the given expression.

2) $\cos(2 \sin^{-1} x)$

2) _____

3) $\cos^{-1}\left(\cos \frac{7\pi}{6}\right)$

3) _____

4) $\sin(\tan^{-1} x)$

4) _____

Find the derivative of y with respect to x.

5) $y = 2x^3 \sin^{-1} x$

5) _____

Evaluate the integral.

6) $\int \frac{6 dx}{\sqrt{49 - 36x^2}}$

6) _____

7) $\int \frac{dx}{16 + x^2}$

7) _____

Provide an appropriate response.

8) Which of the following items is undefined and why?

$\tan^{-1} 2$ or $\cos^{-1} 2$

8) _____