

Inverse Trig and Derivatives of inverse Review Questions

4.2 Inverse Derivatives

Calculus

Find the following.

1. $\frac{d}{dx} \sin^{-1}(8x)$

4. $\frac{d}{dx} \sin^{-1}(-x^2)$

5. $\frac{d}{dx} \tan^{-1}(6x^3)$

6. $\frac{d}{dx} \cos^{-1}(2x^5)$

11. Anti-derivative of $f'(x) = \frac{3}{\sqrt{1-9x^2}}$

Find the value of the derivative of $f^{-1}(x)$ at the given point

d. $f(x) = x^7 + 2x + 9$ @ (12, 1)

e. $f(x) = x^{5/3} e^{x^2}$ @ (e, 1)