
1.(1 pt) If $f(x) = 7 \arcsin(x^4)$, find $f'(x)$.

2.(1 pt) Let

$$f(x) = 2 \sin^{-1}(x^4)$$

$f'(x) =$ _____

3.(1 pt) If $f(x) = 5x \arcsin(x)$, find $f'(x)$.

Find $f'(0.7)$.

4.(1 pt) If $f(x) = 2x^2 \arctan(7x^2)$, find $f'(x)$.

5.(1 pt) Let

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

$f'(x) =$ _____

NOTE: The WeBWorK system will accept $\arctan(x)$ but not $\tan^{-1}(x)$ as the inverse of $\tan(x)$.

6.(1 pt) If $f(x) = 5 \arctan(5x)$, find $f'(x)$.

Find $f'(3)$.

7.(1 pt) If $f(x) = 4 \arctan(7e^x)$, find $f'(x)$.

8.(1 pt) Let

$$f(x) = \tan^{-1}(9^x)$$

$f'(x) =$ _____

9.(1 pt) If $f(x) = 7 \sin(7x) \arcsin(x)$, find $f'(x)$.

10.(1 pt) Let

$$f(x) = 6 \cos(x) \sin^{-1}(x)$$

$f'(x) =$ _____

NOTE: The webwork system will accept $\arcsin(x)$ and not $\sin^{-1}(x)$ as the inverse of $\sin(x)$.

11.(1 pt) Let

$$f(x) = \tan^{-1}(\sin(5x))$$

$f'(x) =$ _____

12.(1 pt) If $f(x) = 4 \arctan(2 \sin(2x))$, find $f'(x)$.

13.(1 pt) Let

$$y = \tan^{-1}(\sqrt{3x^2 - 1})$$

Then $\frac{dy}{dx} =$ _____
