

Natural Logs and E

Differentiate each function with respect to x .

1) $f(x) = \cos 4x^4$

2) $y = \sec 2x^4$

3) $y = \tan 5x^5$

4) $y = \sec 4x^4$

Differentiate each function with respect to the given variable.

5) $r = \ln 4s^4$

6) $r = e^{4s^4}$

$$7) \ h(t) = \ln t^5$$

$$8) \ f = e^{3r^2}(4r^5 - 5)$$

$$9) \ f(r) = e^{3r^4}$$

$$10) \ s = (4r^2 - 3) \ln 4r^5$$

$$11) \ f = e^{4s^3}$$

$$12) \ g(r) = e^{5r^2}(2r^5 + 1)$$