

Some More Differentiation Practice

1. Take the derivative of the following functions:

(a) $h(x) = \ln(5)$

(b) $h(x) = \ln(5x)$

(c) $h(x) = \ln(4x^3 + 2)$

(d) $h(x) = 3 \sin^{-1}(2x)$

(e) $h(x) = \sin(3x) \ln(2x)$

(f) $f(x) = \sin(\ln(3x))$

(g) $g(x) = \ln(\sin(3x))$

2. Try making sketches of $f(x)$ and $g(x)$ and their derivatives.