Compute the derivative of each of the following functions.

$f(x) = 3$

$f(x) = 5x + 2$

$f(x) = 2x^5$

$g(x) = x^2 - 2x + 1$

$l(t) = t^\pi$

$V(r) = \frac{4}{3}\pi r^3$

$s(t) = \frac{1}{4}t^{2/3}$

$h(x) = \sqrt{x} - 2x\sqrt{x}$

$z(s) = s^{-2} + 3s^{-3}$

$w(y) = \sqrt[5]{y}$

$k(t) = \frac{x^2 + x - x^4}{\sqrt{x}}$

$j(x) = \sqrt{2}x - \sqrt{2x}$

$A(u) = \frac{u^2 - 1}{u}$

$B(x) = \frac{x^{4/3}}{x^2 + x^3}$

$y(x) = ax^3 + bx^2 + cx + d$

$P(r) = (r+1)\sqrt{(r+1)^3}$

$z(x) = \frac{1}{x}$

$g(y) = \frac{3x+1}{3x-1}$

$a(x) = |x|$

$b(x) = |x^2|$

$c(x) = |x|^2$

$t(x) = \sqrt{\sqrt{x}}$

$G(x) = x^{2/3}x^{1-2/3}$

$f(z) = \frac{z}{z + \frac{1}{z}}$

$h(x) = \sin x$

$j(x) = \cos x$

$k(x) = \tan x$

$l(x) = \cot x$

$m(x) = \sec x$

$n(x) = \csc x$

$q(t) = \cos(3x)$

$T(x) = \frac{1}{\tan x}$

$A(r) = r \sin r$

$c(\theta) = \sin^2\theta - \cos^2\theta$

$l(z) = z\sqrt{\sin z}$

$a(w) = \cos w \tan w$

$b(r) = \sin(\sin x)$

$u(x) = \sin(\sin(\sin x))$

$f(x) = \sin\sqrt{x}$

$q(t) = \frac{\sin^2 t + 1}{\cos t}$

$y(x) = (\sin x)^3 + 2(\sin x)^2 + 7\sin x - 1$

$u(v) = \sin\frac{1}{v^2}$

$s(x) = \frac{x}{|x|}$

$h(x) = (x-1)^4(x+1)^7$

$j(x) = \sqrt{3x+5}\sqrt{\sin x}$

$m(\theta) = (\sqrt{\sin\theta})^2$

$n(\theta) = \sqrt{\sin^2\theta}$

$f(x) = \frac{(3x^2+1)\cos(x) + \sqrt{x^2+1}}{\tan(\tan x)}$

$g(x) = \frac{2}{\frac{5}{x^3}}$

$h(x) = \sqrt{x} + \sqrt{y}$

$x(t) = 3x$

$y(r) = \sin|r|$

$z(t) = |t^2 - 2t + 3|$

$g(x) = [x]$

$h(x) = [2x]$

$j(x) = [x^2]$