Find the derivative of each function:

$y = (2x-7)^3$ $\quad$ $y = 3(4-x^2)^5$ $\quad$ $g(x) = 3(4-9x)^4$ $\quad$ $f(t) = (9t+2)^{2/3}$

$f(t) = \sqrt{1-t}$ $\quad$ $g(x) = \sqrt{5-3x}$ $\quad$ $y = \sqrt[3]{9x^2+4}$ $\quad$ $g(x) = \sqrt{x^2-2x+1}$

$y = 2\sqrt[4]{4-x^2}$ $\quad$ $f(x) = -3\sqrt[4]{2-9x}$ $\quad$ $y = \dfrac{1}{x-2}$ $\quad$ $s(t) = \dfrac{1}{t^2+3t-1}$

$f(t) = \left(\dfrac{1}{t-3}\right)^2$ $\quad$ $y = -\dfrac{5}{(t+3)^3}$ $\quad$ $y = \dfrac{1}{\sqrt{x+2}}$ $\quad$ $g(t) = \sqrt{\dfrac{1}{t^2-2}}$

$f(x) = x^2(x-2)^4$ $\quad$ $f(x) = x(3x-9)^3$ $\quad$ $y = x\sqrt{1-x^2}$ $\quad$ $y = \dfrac{1}{2}x^2\sqrt{16-x^2}$

$y = \dfrac{x}{\sqrt{x^2+1}}$ $\quad$ $y = \dfrac{x}{\sqrt{x^4+4}}$ $\quad$ $g(x) = \left(\dfrac{x+5}{x^2+2}\right)^2$ $\quad$ $h(t) = \left(\dfrac{t^2}{t^3+2}\right)^2$

$f(v) = \left(\dfrac{1-2v}{1+v}\right)^3$ $\quad$ $g(x) = \left(\dfrac{3x^2-2}{2x+3}\right)^3$ $\quad$ $g(x) = \ln x^2$ $\quad$ $h(x) = \ln(2x^2+1)$

$y = (\ln x)^4$ $\quad$ $y = x\ln x$ $\quad$ $y = \ln(x\sqrt{x^2-1})$ $\quad$ $y = \ln\sqrt{x^2-4}$

$f(x) = \ln\left(\dfrac{x}{x^2+1}\right)$ $\quad$ $f(x) = \ln\left(\dfrac{2x}{x+3}\right)$ $\quad$ $g(t) = \dfrac{\ln t}{t^2}$ $\quad$ $h(t) = \dfrac{\ln t}{t}$

$y = \ln(\ln x^2)$ $\quad$ $y = \ln(\ln x)$ $\quad$ $y = \ln\sqrt{\dfrac{x+1}{x-1}}$ $\quad$ $y = \ln\sqrt[3]{\dfrac{x-1}{x+1}}$

$f(x) = \ln\left(\dfrac{\sqrt{4+x^2}}{x}\right)$ $\quad$ $f(x) = \ln(x+\sqrt{4+x^2})$ $\quad$ $y = -\dfrac{\sqrt{x^2+1}}{x} + \ln(x+\sqrt{x^2+1})$

$y = -\dfrac{\sqrt{x^2+4}}{2x^2} - \dfrac{1}{2}\ln\left(\dfrac{2+\sqrt{x^2+4}}{x}\right)$

$f(x) = e^{2x}$ $y = e^{-x^2}$ $y = e^{\sqrt{x}}$ $y = x^2 e^{-x}$

$g(t) = (e^{-t} + e^{t})^3$ $g(t) = e^{-3/t^2}$ $y = \ln(1 + e^{2x})$ $y = \ln\left(\dfrac{1 + e^x}{1 - e^x}\right)$

$y = \dfrac{2}{e^x + e^{-x}}$ $y = \dfrac{e^x - e^{-x}}{2}$ $y = \ln e^x$ $f(x) = e^{1-x}$

$y = e^{-2x+x^2}$ $y = \ln \dfrac{e^x + e^{-x}}{2}$ $y = x^2 e^x - 2xe^x + 2e^x$ $f(x) = e^3 \ln x$

$f(x) = 4^x$ $y = x(6^{-2x})$ $g(t) = t^2 2^t$ $f(t) = \dfrac{3^{2t}}{t}$

$f(x) = \log_2 \dfrac{x^2}{x-1}$ $h(x) = \log_3 \dfrac{x\sqrt{x-1}}{2}$ $y = \log_5 \sqrt{x^2 - 1}$ $g(t) = \dfrac{10 \log_4 t}{t}$