Calculer la fonction dérivée des fonctions suivantes

$f(x) = -5x$

$f(x) = 3x$

$f(x) = x+2$

$f(x) = 5-7x$

$f(x) = 2x^2 - 5x + 6$

$f(x) = 3x^5 - 2x^3 + 3x^2 - 7x + 2$

$f(x) = 2\sqrt{x}$

$f(x) = \sqrt{x} - 3x^2$

$f(x) = \sqrt[3]{x} + 2$

$f(x) = 5x - \frac{1}{x}$

$f(x) = \frac{5}{\sqrt[3]{x}}$

$f(x) = \frac{2}{x^2} - \frac{3}{x^3}$

$f(x) = (x+1)(3x-2)$

$f(x) = (x+5)(2x-3)$

$f(x) = \sqrt{x}\left(x^2 - 1\right)$

$f(x) = \frac{x+2}{x-3}$

$f(x) = \frac{2x^2 - 1}{x+5}$

$f(x) = (x-2)^3$

$f(x) = (5x-4)^6$

■ Solutions

f'(x) = $(-5\,x)' = -5$

f'(x) = $(3\,x)' = 3$

f'(x) = $(x+2)' = 1$

f'(x) = $(5-7\,x)' = -7$

f'(x) = $\left(2\,x^2-5\,x+6\right)' = 4\,x-5$

f'(x) = $\left(3\,x^5-2\,x^3+3\,x^2-7\,x+2\right)' = 15\,x^4-6\,x^2+6\,x-7$

f'(x) = $\left(2\sqrt{x}\right)' = \frac{1}{\sqrt{x}}$

f'(x) = $\left(\sqrt{x}-3\,x^2\right)' = \frac{1}{2\sqrt{x}}-6\,x$

f'(x) = $\left(\sqrt[3]{x}+2\right)' = \frac{1}{3\,x^{2/3}}$

f'(x) = $\left(5\,x-\frac{1}{x}\right)' = 5+\frac{1}{x^2}$

f'(x) = $\frac{5}{\sqrt[3]{x}}' = -\frac{5}{3\,x^{4/3}}$

f'(x) = $\left(\frac{2}{x^2}-\frac{3}{x^3}\right)' = \frac{9}{x^4}-\frac{4}{x^3} = \frac{9-4\,x}{x^4}$

f'(x) = $((x+1)(3\,x-2))' = 3\,x+3\,(x+1)-2 = 6\,x+1$

f'(x) = $((x+5)(2\,x-3))' = 2\,x+2\,(x+5)-3 = 4\,x+7$

f'(x) = $\left(\sqrt{x}\left(x^2-1\right)\right)' = 2\,x^{3/2}+\frac{x^2-1}{2\sqrt{x}} = \frac{5\,x^2-1}{2\sqrt{x}}$

f'(x) = $\frac{x+2}{x-3}' = \frac{1}{x-3}-\frac{x+2}{(x-3)^2} = -\frac{5}{(x-3)^2}$

f'(x) = $\frac{2\,x^2-1}{x+5}' = \frac{4\,x}{x+5}-\frac{2\,x^2-1}{(x+5)^2} = \frac{2\,x^2+20\,x+1}{(x+5)^2}$

f'(x) = $(x-2)^{3\,\prime} = 3\,(x-2)^2$

f'(x) = $(5\,x-4)^{6\,\prime} = 30\,(5\,x-4)^5$