

Derivatives of elementary functions

1 – Elementary functions :

$f(x) =$	a	x	ax	$ax+b$	x^2	ax^2+bx+c	x^n	$\frac{1}{x}$	\sqrt{x}	$\frac{1}{\sqrt{x}}$	$\frac{ax+b}{cx+d}$
$f'(x) =$											

2 - Operations formulas : u and v have derivative functions u' and v'

$f =$	$u + v$	$k.u$	$u.v$	$\frac{1}{u}$	$\frac{u}{v}$	u^n	\sqrt{u}	$\frac{1}{\sqrt{u}}$
$f' =$								

3 – Exercise : compute the following derivatives. using the previous formulas (show calculations below or on the back.

$f(x) =$	$-\frac{4}{3x^2+2}$	$\left(\frac{2}{3}x^3 + \frac{1}{2}x^2\right)^3$	$\frac{3x+4}{x-2}$	$\sqrt{\frac{3x+4}{x-2}}$	$\frac{2x^2+2x-4}{x^2-3x+1}$
$f'(x) =$					