Devoir en classe n°1

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Année scolaire 2005/2006

EXERCICE N°1 :

$f(x) = 5$;

$f(x) = 1 - 7x$;

$f(x) = x^4 + 2x + 4$;

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

$f(x) = \left(2 - x^3\right)\left(2x^2 - 1\right)$;

$f(x) = \frac{x^2 - 4}{x + 2}$;

$f(x) = \frac{x^2 + 4}{x + 2}$;

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

$f(x) = -3x$;

$f(x) = \frac{1}{2}x - \sqrt{2}$;

$f(x) = \frac{3}{2}x^3 - \frac{4}{x} + 7$;

EXERCICE N°1 :

$f(x) = 5$; $f'(x) = 0$;

$f(x) = 1 - 7x$; $f'(x) = -7$;

$f(x) = x^4 + 2x + 4$; $f'(x) = 4x^3 + 2$;

$f(x) = 2x^3 - x^2 + \frac{5}{x^2} - \frac{1}{5}$; $f'(x) = 6x^2 - 2x - \frac{10}{x^3}$;

$f(x) = \left(2 - x^3\right)\left(2x^2 - 1\right)$;

$f'(x) = x\left(-10x^3 + 3x + 8\right)$;

$f(x) = \frac{x^2 - 4}{x + 2}$ pour tout $x \neq -2$; $f(x) = x - 2$;

$f'(x) = 1$

$f(x) = \frac{x^2 + 4}{x + 2}$ pour tout $x \neq -2$;

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

$f(x) = -3x$; $f'(x) = -3$;

$f(x) = \frac{1}{2}x - \sqrt{2}$; $f'(x) = \frac{1}{2}$;

$f(x) = \frac{3}{2}x^3 - \frac{4}{x} + 7$; $f'(x) = \frac{9}{2}x^2 + \frac{4}{x^2}$;

$f(x) = \frac{-x^2 + x + 2}{x + 2}$; pour tout $x \neq -2$

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

Devoir en classe n°1

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EXERCICE N°2 :

$f(x) = -4$;

$f(x) = 1 + 3x$;

$f(x) = x^3 + x^2 + 1$;

$f(x) = x^4 + 2x + \frac{3}{x^2} - \frac{1}{7}$;

$f(x) = \left(1 - x^4\right)\left(2x - 1\right)$;

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

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

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

$f(x) = -5x$;

$f(x) = \frac{1}{3}x - \sqrt{5}$;

$f(x) = \frac{1}{3}x^4 - \frac{3}{x} - 8$;

EXERCICE N°2 :

$f(x) = -4$;
$f'(x) = 0$;

$f(x) = -5x$;
$f'(x) = -5$;

$f(x) = 1 + 3x$;
$f'(x) = 3$;

$f(x) = \frac{1}{3}x - \sqrt{5}$;
$f'(x) = \frac{1}{3}$;

$f(x) = x^3 + x^2 + 1$;
$f'(x) = 3x^2 + 2x$;

$f(x) = \frac{1}{3}x^4 - \frac{3}{x} - 8$;
$f'(x) = \frac{4}{3}x^3 + \frac{3}{x^2}$;

$f(x) = x^4 + 2x + \frac{3}{x^2} - \frac{1}{7}$;
$f'(x) = 4x^3 + 2 - \frac{6}{x^3}$;

$f(x) = \frac{-x^2 + x + 1}{x + 1}$; pour tout $x \neq -1$

$f(x) = \left(1 - x^4\right)\left(2x - 1\right)$;
$f'(x) = -10x^4 - 4x^3 + 2$;

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

$f(x) = \frac{x^2 - 1}{x + 1}$ pour tout $x \neq -1$; $f(x) = x - 1$;
$f'(x) = 1$

$f(x) = \frac{x^2 + 1}{x + 1}$ pour tout $x \neq -1$;

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

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ETUDE LOCALE ET GLOBALE D'UNE FONCTION :
Le Lundi 27 Septembre 2004

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$f(x) = -5x$;

$f(x) = \frac{1}{3}x - \sqrt{5}$;

$f(x) = \frac{1}{3}x^4 - \frac{3}{x} - 8$;

$f(x) = x^3 + x^2 + 1$;

$f(x) = \left(1 - x^4\right)\left(2x - 1\right)$;

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

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

EXERCICE N°2 :

$f(x) = 5$;

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$f(x) = x^4 + 2x + 4$;

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

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

$f(x) = -5x$;

$f(x) = \frac{1}{3}x - \sqrt{5}$;

$f(x) = \frac{1}{3}x^4 - \frac{3}{x} - 8$;