

Auto-évaluation ex 5 page 59

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Maths 1S



1 Soit $f : x \mapsto x^2 + 3x$. Calculer :

a) $f(1 + x)$

b) $f(1 - x)$

c) $1 - f(x)$

d) $f\left(\frac{1}{x}\right)$

2 Même consigne avec $f : x \mapsto \frac{2x+3}{x-7}$.

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$$\text{donc } f\left(\frac{1}{x}\right) = \frac{1}{x^2} + \frac{3}{x} = \frac{1+3x}{x^2}.$$

$$2 \quad a) f(1+x) = \frac{2(1+x)+3}{1+x-7},$$

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$$\text{donc } f\left(\frac{1}{x}\right) = \frac{2+3x}{x} \times \frac{x}{1-7x} = \frac{3x+2}{1-7x} = -\frac{3x+2}{7x-1}.$$