

Auto-évaluation ex 4 page 131

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Maths 1S



Écrire dans chacun des cas suivants u_{n+1} en fonction de n .

1 $u_n = -4n + 2$

2 $u_n = 2n^2 - 3$

3 $u_n = 3^n \times 5$

4 $u_n = \frac{1+n}{1+3n}$

$$1 \quad u_{n+1} = -4(n+1) + 2,$$

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$$\text{donc } u_{n+1} = -4n - 4 + 2 = -4n - 2.$$

$$2 \quad u_{n+1} = 2(n+1)^2 - 3$$

$$2 \quad u_{n+1} = 2(n+1)^2 - 3$$

$$\text{donc } u_{n+1} = 2(n^2 + 2n + 1) - 3 = 2n^2 + 4n - 1.$$

$$3 \quad u_{n+1} = 3^{n+1} \times 5,$$

3

$$u_{n+1} = 3^{n+1} \times 5,$$

$$\text{donc } u_{n+1} = 3^n \times 3 \times 5 = 3^n \times 15.$$

4

$$u_{n+1} = \frac{1 + (n + 1)}{1 + 3(n + 1)},$$

4

$$u_{n+1} = \frac{1 + (n+1)}{1 + 3(n+1)},$$

$$\text{donc } u_{n+1} = \frac{n+2}{3n+4}.$$