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Sésamath

Maths 1S



Calculer.

$$1 \quad \sum_{k=0}^3 k^2$$

$$2 \quad \sum_{k=0}^3 (-1)^k$$

$$3 \quad \sum_{k=0}^2 \frac{k}{k+1}$$

$$4 \quad \sum_{k=0}^2 (2k+1) \times (-1)^k$$

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$$\sum_{k=0}^3 k^2 = 0^2 + 1^2 + 2^2 + 3^2$$

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$$\sum_{k=0}^3 k^2 = 0 + 1 + 4 + 9 = 14$$

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$$\sum_{k=0}^3 (-1)^k = (-1)^0 + (-1)^1 + (-1)^2 + (-1)^3$$

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$$\sum_{k=0}^3 (-1)^k = 1 + (-1) + 1 + (-1) = 0$$

$$3 \quad \sum_{k=0}^2 \frac{k}{k+1}$$

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$$\sum_{k=0}^2 \frac{k}{k+1} = \frac{3}{6} + \frac{4}{6} = \frac{7}{6}$$

$$4 \quad \sum_{k=0}^2 (2k + 1) \times (-1)^k$$

$$\sum_{k=0}^2 (2k + 1) \times (-1)^k =$$

$$(2 \times 0 + 1) \times (-1)^0 + (2 \times 1 + 1) \times (-1)^1 + (2 \times 2 + 1) \times (-1)^2$$

$$4 \quad \sum_{k=0}^2 (2k + 1) \times (-1)^k$$

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$$\sum_{k=0}^2 (2k + 1) \times (-1)^k = 1 + (-3) + 5 = 3$$