

Réponses du devoir de Mathématiques n°1

Sujet Droit

Exercice 1

- 1,036
- 24,32%
- 11,5%
- 28,1%

Exercice 2

- $298 \times \left(1 + \frac{26}{100}\right) = 375,5$
- $143,3 \times \frac{133,2}{100} = 190,9$
- $\left(\frac{243}{166,7}\right)^{\frac{1}{3}} - 1 = 13\%$
- $243 \times \left(1 + \frac{13}{100}\right) = 275,5$

Exercice 3

- $\frac{525}{1500} = 35\%$
- $\frac{156}{1500} = 10,4\%$
- $\frac{48}{195} = 24,6\%$
- $\frac{156 + 171}{525} = 62,3\%$

Exercice 4

- $\frac{56628 - 68839}{68839} = -17,8\%$
- (a) $a = \left(\frac{56628}{60196}\right)^{1/7} = 0,991$
(b) $0,991 - 1 = -0,9\%$
- $56628 \times 0,99^4 = 54396$

Exercice 5

- $\left(1 - \frac{30}{100}\right)^{\frac{1}{5}} - 1 = -6,89\%$
- (a) $\left(1 - \frac{5}{100}\right) \left(1 - \frac{1}{100}\right) \left(1 - \frac{3}{100}\right) - 1 = -9\%$
(b) $\frac{0,7}{0,91} - 1 = -23\%$
(c) $\left(1 - \frac{23}{100}\right)^{\frac{1}{2}} - 1 = -12\%$

Sujet Gauche

Exercice 1

- 1,043
- 35,59%
- 16,4%
- 28,1%

Exercice 2

- $21,3 \times \left(1 + \frac{46}{100}\right) = 31,1$
- $125,9 \times \frac{148,7}{100} = 187,2$
- $\left(\frac{47,3}{24,8}\right)^{\frac{1}{3}} - 1 = 24\%$
- $47,3 \times \left(1 + \frac{24}{100}\right) = 58,7$

Exercice 3

- $\frac{975}{1500} = 65\%$
- $\frac{48}{1500} = 3,2\%$
- $\frac{156}{414} = 37,7\%$
- $\frac{150 + 48}{525} = 37,7\%$

Exercice 4

- $\frac{56628 - 68839}{68839} = -17,8\%$
- (a) $a = \left(\frac{60196}{68839}\right)^{1/17} = 0,992$
(b) $0,992 - 1 = -0,8\%$
- $56628 \times 0,99^4 = 54396$

Exercice 5

- $\left(1 - \frac{40}{100}\right)^{\frac{1}{5}} - 1 = -9,71\%$
- (a) $\left(1 - \frac{5}{100}\right) \left(1 - \frac{2}{100}\right) \left(1 - \frac{3}{100}\right) - 1 = -10\%$
(b) $\frac{0,6}{0,9} - 1 = -33\%$
(c) $\left(1 - \frac{33}{100}\right)^{\frac{1}{2}} - 1 = -18\%$