Progressions et suites de réels

2. Suites géométriques

$$t_n = t_1 \cdot r^{n-1}$$

$$S_n = t_1 \cdot \frac{r^n - 1}{r - 1}$$

Exercices:

Exercice 1.

t_1 = 5

t_2 = 15

t_4 = ?

S_4 = ?

Exercice 2.

t_1 = 21

t_4 = 168

r = ?

S_4 = ?

Exercice 3.

t_1 = 2

t_7 = 128

t_{10} = ?

S_{10} = ?

Exercice 4.

r = 0.2

S_5 = 62.48

t_1 = ?

t_5 = ?

Exercice 5.

t_1 = 7

S_7 = 889

r = ?

t_5 = ?

Exercice 6.

t_1 = 4

S_{10} = 17.8525

r = ?

t_{10} = ?

Exercice 7.

t_1 = 2

t_n = 162

S_n = 242

n = ?

Exercice 8.

t_1 = 2

t_n = 2048

S_n = 2730

n = ?

Exercice 9.

t_1 = 1

S_n = 1.9375

r = 0.5

n = ?

Exercice 10.

t_1 = 2

t_n = 162

S_n = 242

r = ?

Solutions:

Exercice 1.

t_1 = 5

t_2 = 15

t_4 = 135

S_4 = 200

Exercice 2.

t_1 = 21

t_4 = 168

r = 2

S_4 = 315

Exercice 3.

t_1 = 2

t_7 = 128

t_{10} = 1024

S_{10} = 2046

Exercice 4.

r = 0.2

S_5 = 62.48

t_1 = 50

t_5 = 0.08

Exercice 5.

t_1 = 7

S_7 = 889

r = 2

t_5 = 112

Exercice 6.

t_1 = 4

S_{10} = 17.8525

r = 0.8

t_{10} = 0.536871

Exercice 7.

t_1 = 2

t_n = 162

S_n = 242

n = 5

Exercice 8.

t_1 = 2

t_n = 2048

S_n = 2730

n = 6

Exercice 9.

t_1 = 1

S_n = 1.9375

r = 0.5

n = 5

Exercice 10.

t_1 = 2

t_n = 162

S_n = 242

r = 3