

seaplanes



example

exercise 1

exercise 2

sequences

- Sometime, we can use an algebraic expression for the n -th term of a sequence
- Factorials are commonly used in sequences $n! = n(n - 1)(n - 2)(n - 3)\cdots 1$

example

The n -th term of the sequences $\{1, 2, 3, 4, 5, 6, \dots\}$ is given by $a_n = n$

The n -th term of the sequences $\{1, -1, 1, -1, 1, -1, \dots\}$ is given by $a_n = (-1)^{n+1}$

exercise 1

Find a formula for the n -th term in the following sequence $\left\{ \frac{-1}{2}, \frac{1}{3}, \frac{-1}{4}, \frac{1}{5}, \frac{-1}{6}, \dots \right\}$

exercise 2

Find a formula for the n -th term in the following sequence $\left\{ \frac{2}{1}, \frac{4}{2}, \frac{8}{6}, \frac{16}{24}, \frac{32}{120}, \dots \right\}$

sequences

$$a_1$$

$$a_n = \left\{ \frac{(-1)^n}{n} \right\}$$

$$a_n = \left\{ \frac{2n^3 - 1}{n^3} \right\}$$