

Halloween party

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All topics

- 1 Closed Form
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Closed Form

An equation is said to be a closed-form solution if it solves a given problem in terms of functions and mathematical operations from a given generally-accepted set.

For example, the sum of the first N numbers is given by the closed form

$$\sum_{i=0}^N i = \frac{N \times (N + 1)}{2}$$

A great tool to find closed form is a search tool [The On-Line Encyclopedia of Integer Sequences](#).

Related challenge for Closed Form

Utopian Tree



Success Rate: 97.85% Max Score: 20 Difficulty:

Solve Challenge

Maxima Minima

Given a function $f(x)$, we can find maxima, minima value of this function by equating first order derivative to 0.

$f'(x) = 0$. The value of x that satisfies this is a local max or min.

In general to find max/min value of function $f(x)$ over a range $[l, r]$ we need to check $f(l)$, $f(r)$ and all the points x , where $f'(x) = 0$.