Open book and notes.

Problem   Function sum is defined over non-negative integers. If n is even, $sum\ n$ is the sum of all even integers from 0 through n, and if n is odd it is the sum of all odd integers from 0 through n.

```
sum 0 = 0
sum n = n + sum (n-2)
```

Is this program correct?

Solution   This program is incorrect, because no provision has been made for the case `sum 1`. The correct definition is:

```
sum 0 = 0
sum 1 = 1
sum n = n + sum (n-2)
```