

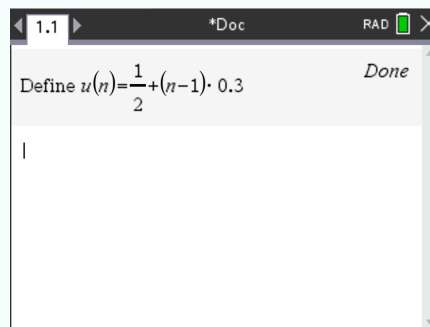


## 1.2 Arithmetic sequences and series

### 1.2.1 Enter a sequence on your calculator





Suppose you want to enter the sequence  $u_n = \frac{1}{2} + (n - 1) \cdot 0.3$  on your calculator.

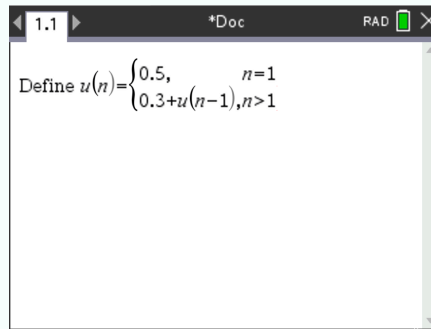
- ① Create a new document, press  and select Add Calculator.
- ② Press , select Actions > Define.
- ③ Type  $u(n) =$ , then write the expression of the sequence



### 1.2.2 Enter a sequence on your calculator (recursive definition)



Suppose you want to enter the sequence  $u_n = 0.3 + u_{n-1}$ , with  $u_1 = 0.5$  on your calculator.

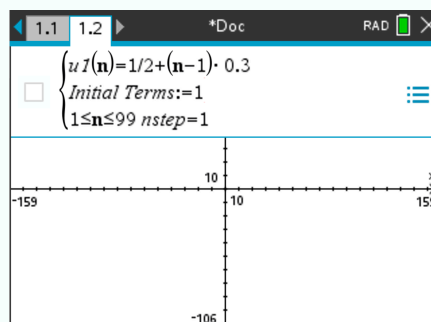
- ① Create a new document, press  and select Add Calculator.
- ② Press , select Actions > Define.
- ③ Type  $u(n) =$ , press  and select .
- ④ On the first line, write the initialization. On the second line, write the recursive expression.




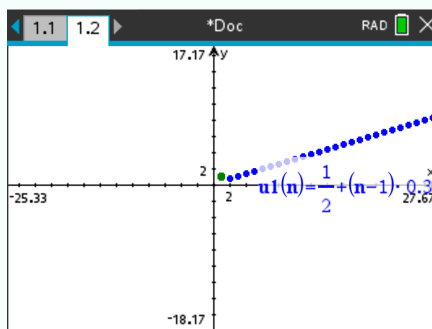
### 1.2.3 Graph a sequence

Suppose you want to display the graph of the sequence  $u_n = \frac{1}{2} + (n-1) \cdot 0.3$  on your calculator, starting at  $n = 1$  and ending at  $n = 20$ .

- ① Create a new document, press  and select Add Graphs.
- ② Press , select Graph Entry/Edit > Sequence > Sequence
- ③ In the first line, write the expression of the sequence. In the second line, write the number of initial terms.




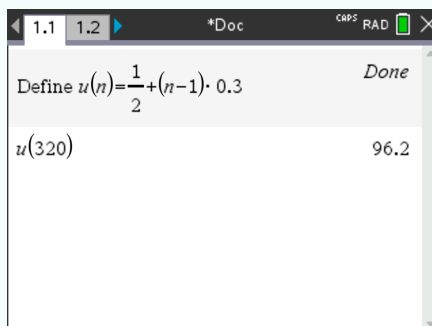
- ④ Press  and the graph of the sequence is displayed.



### 1.2.4 Compute a term of a sequence

Suppose you want to know the 320<sup>th</sup> term of the sequence  $u_n = \frac{1}{2} + (n - 1) \cdot 0.3$ .

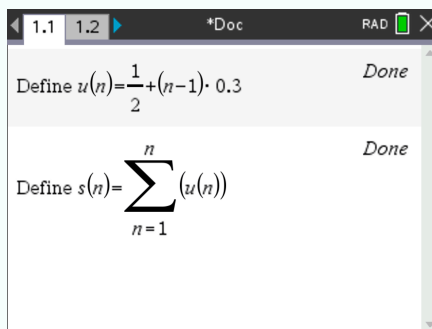
- ① Enter the sequence on your calculator (see ③)
- ② Press  and write  $u(320)$  in the following line.





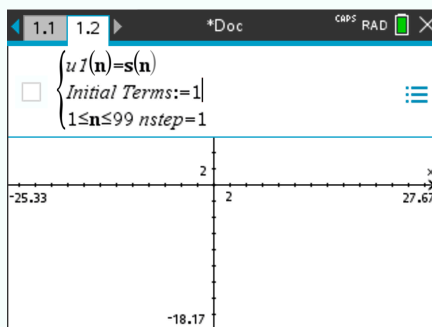
### 1.2.5 Graph a series

Suppose you want to graph the series of the sequence  $u(n) = \frac{1}{2} + (n - 1) \cdot 0.3$  on your calculator, starting at  $n = 1$  and ending at  $n = 20$ .

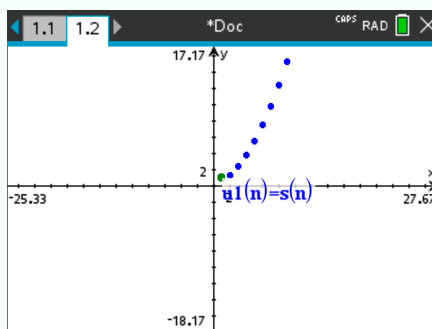
- ① Enter the sequence on your calculator (see ③)
- ② Enter the series of the sequence in the line below



- ③ Create a new document, press  and select Add Graphs.
- ④ Press , select Graph Entry/Edit > Sequence > Sequence
- ⑤ In the first line, write  $s(n)$ . In the second line, write the number of initial terms.




- ⑥ Press  and the graph of the serie is displayed



### 1.2.6 Compute the value of a series

1. Enter the sequence on your calculator (see ③)
2. Enter the series of the sequence in the line below.

3. Type  $s(20)$  to set the ending of the serie at 20. Press  . The result should be 67.

