Simple Recursive Sequences

Open the Sequence application.

Tap Edit, Clear All, OK.

Example 1. Find the tenth term of the arithmetic sequence given by

$$T_{n+1} = T_n - 4$$
, $T_1 = 33$

Tap **Type** and choose the 2nd type.

Enter the recursive formula on the first line using the n-an menu and the keyboard.

Tap **EXE**.

Enter the first term as 33.

Check that the formula is selected with a tick.

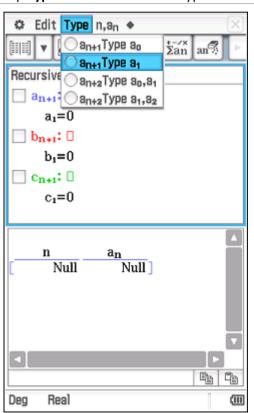


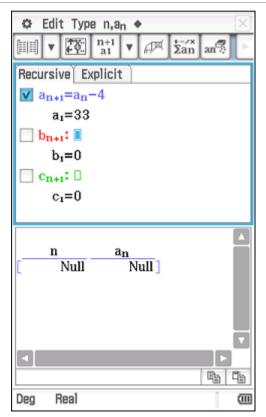
Use Start and End to set the first term as **1** and last term as **10** and then tap **OK**.

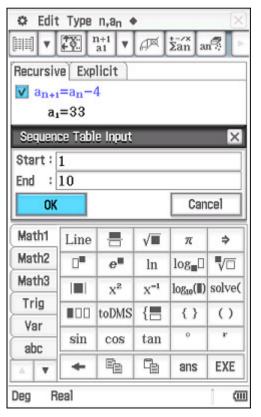


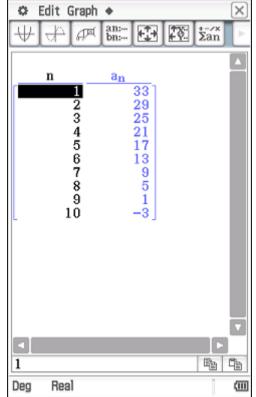
Tap Resize.

The first ten terms are displayed.









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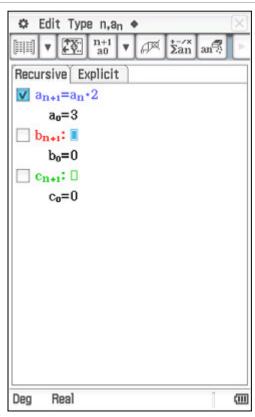
Example 2. Find the sum of the first eleven terms of the geometric sequence given by $T_{n+1} = T_n \times 2$, $T_1 = 3$.

Tap Edit, Clear All, OK.

Tap **Type** and choose the 2nd type.

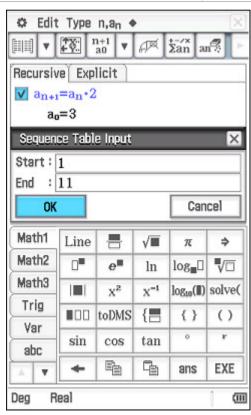
p **Type** and choose the 2nd type.

Enter the recursive formula and enter the first term as **3**.





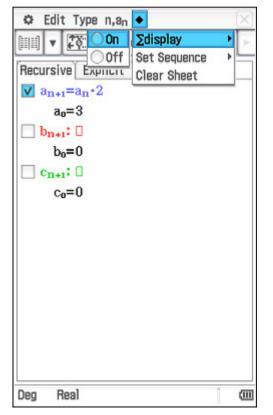
Use Start and End to set the first term as **1** and last term as **11** and then tap **OK**.





Tap Zdisplay.

Choose **On** to also display the sum of the terms.





Tap Resize.

The first ten terms are displayed together with sums in the third column.

