

# Recursive Formulas-Type 3

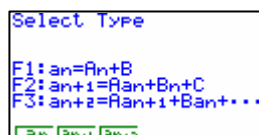
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Select RECUR mode from the main menu by using the arrow keys to highlight the RECUR icon or pressing 8.



Can be used for arithmetic or geometric sequences.

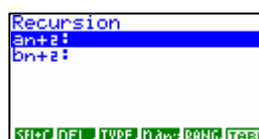
Note: There are 3 different settings for recursive formulas. There is one worksheet for each type.



Type 1



Type 2



Type 3

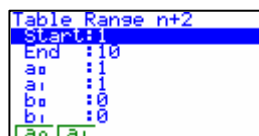
This worksheet deals with Type 3.

Example: For the sequence  $\langle a_{n+2} \rangle = \langle a_n + a_{n+1}, a_1 = 1 \text{ and } a_2 = 1 \rangle$ , list the first 10 terms of this sequence and draw the sequence.

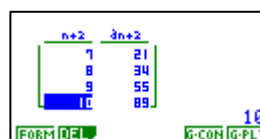
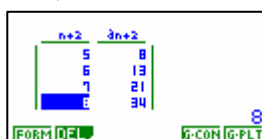
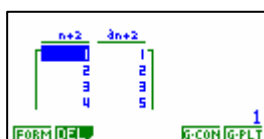
Answer: Enter in the equation of the sequence  
Press **EXE** to store it.



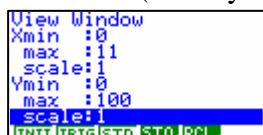
Then press **F5** to set up the calculator for the first 10 members of the sequence. Then **EXIT**



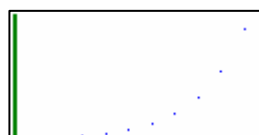
Then **F6** for the **TABLE**, to reveal the sequence shown below.



If you want to draw the sequence make sure that you have set up the V-Window (x and y axes) to adequately draw the sequence. **SHIFT F3** to get the V-Window.



**EXIT** then **F6** to get the table again and **F6** for the plotted



sequence values