

THE FIBONACCI SEQUENCE using a **classpad calculator**.

If you observe the following sequence you may work out how to find the next term.

1, 1, 2, 3, 5, 8, 13, 21, ___ ___ ___

The best way to observe this sequence is by using the spreadsheet facility on the classpad calculator. (See Below)

	A	B	C
1	1	1	1
2	1	2	1
3	2	4	4
4	3	7	9
5	5	12	25
6	8	20	64
7	13	33	169
8	21	54	441
9	34	88	1156
10	55	143	3025
11	89	232	7921
12	144	376	20736
13	233	609	54289
14	377	986	142129
15	610	1597	

Here I have entered 1 into cell **A1** 1 into cell **A2** and the formula for cell **A3** (copy and paste) is $=A1 + A2$

This will give us the correct sequence

To give us the sum of these terms I have entered a 1 into cell **B1** and in cell **B2** I have written the formula $= A2 + B1$ (as in the diagram above near the bottom of the picture. This column gives us a running total of the terms.

The C column gives us $(F_n)^2$ and the D column gives us $(F_{n+1})^2$ The E column is then $C1 + D1$

	C	D	E
1	1	1	2
2	1	4	5
3	4	9	13
4	9	25	34
5	25	64	89
6	64	169	233
7	169	441	610
8	441	1156	1597
9	1156	3025	4181
10	3025	7921	10946
11	7921	20736	28657
12	20736	54289	75025
13	54289	142129	196418
14	142129	372100	514229
15			

Compare this column with the original **Fibonacci Sequence**.