



Example: Find the interest accrued in the tenth year on an amount of \$500 invested at a rate of 5%, with interest compounded annually.

We will use the recursive formula $T_{n+1} = T_n \times 1.05$, $T_0 = 500$ to solve this problem.

Enter the formula as shown.

Use  to set the table range from 0 to 10.

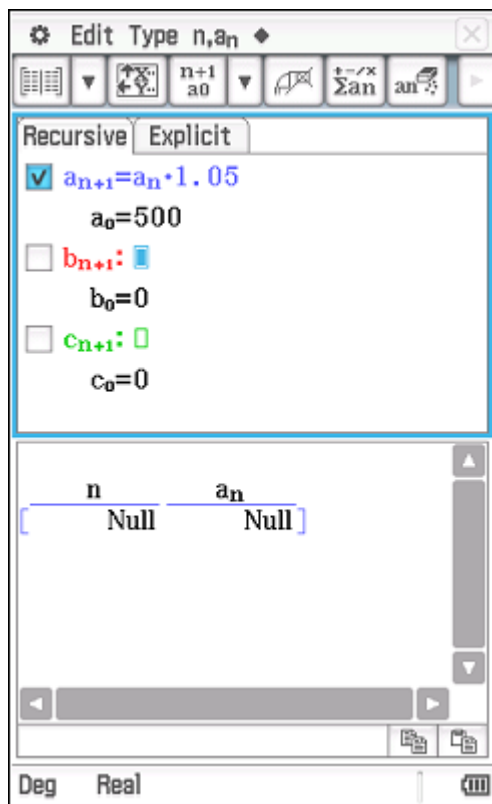
Tap  and choose the second option.

Tap **Resize** to see all rows and note that a third column is added to the table headed Dfrn (the difference of consecutive terms).

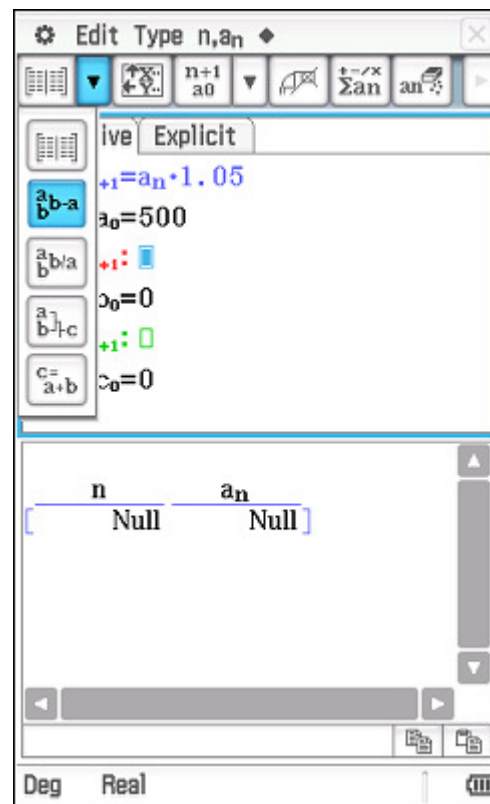
The second column shows the total value of the investment after n years.

The third column shows the interest accrued during year n .

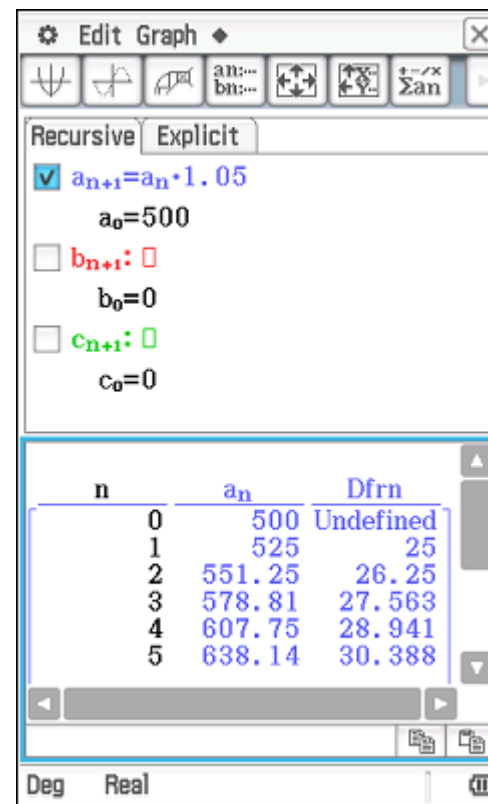
The solution to the problem is \$38.78.



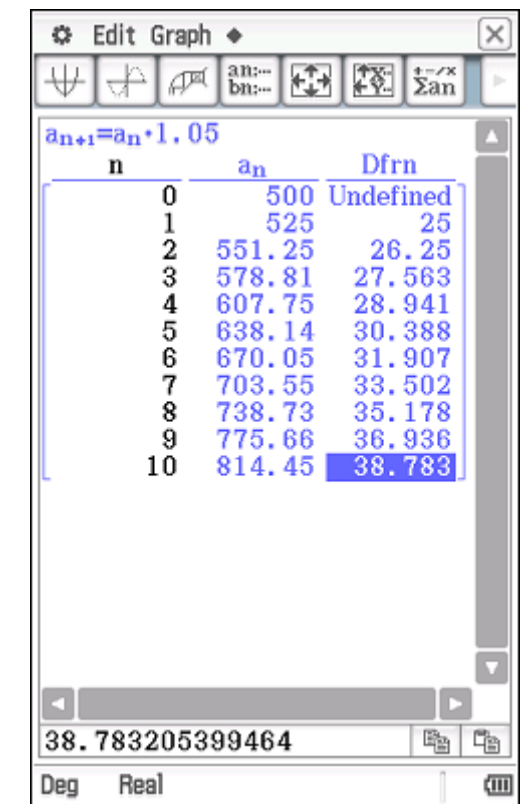
Screen 1: Edit Type n, a_n . Recursive formula: $a_{n+1} = a_n \cdot 1.05$, $a_0 = 500$. Table range: n from Null to Null, a_n from Null to Null.



Screen 2: Edit Type n, a_n . Recursive formula: $a_{n+1} = a_n \cdot 1.05$, $a_0 = 500$. Table range: n from Null to Null, a_n from Null to Null.



Screen 3: Edit Graph. Recursive formula: $a_{n+1} = a_n \cdot 1.05$, $a_0 = 500$. Table range: n from 0 to 5, a_n from 500 to 638.14, Dfrn from Undefined to 30.388.



Screen 4: Edit Graph. Recursive formula: $a_{n+1} = a_n \cdot 1.05$. Table range: n from 0 to 10, a_n from 500 to 814.45, Dfrn from Undefined to 38.783. Total value: 38.783205399464.

n	a_n	Dfrn
0	500	Undefined
1	525	25
2	551.25	26.25
3	578.81	27.563
4	607.75	28.941
5	638.14	30.388
6	670.05	31.907
7	703.55	33.502
8	738.73	35.178
9	775.66	36.936
10	814.45	38.783