Constant Arithmetic

Sample Case: The growth of $1000 invested at 10% per period would constitute a geometric series in which the first term is 1000 and the growth factor is 1.10. Follow the example below to calculate the first six periods of growth and watch your savings grow!

Press	See Displayed	
1.10	**1.10**	Growth factor.
ENTER↑	**1.10**	
ENTER↑	**1.10**	
ENTER↑	**1.10**	Growth factor now in T.
1000	**1000.**	Original amount.
×	**1100.00**	Amount after 1 period.
×	**1210.00**	Amount after 2 periods.
×	**1331.00**	Amount after 3 periods.
×	**1464.10**	Amount after 4 periods.
×	**1610.51**	Amount after 5 periods.
×	**1771.56**	Amount after 6 periods.

What we've done is put the growth factor *(1.10)* in the Y-, Z-, and T-registers and put the first term *(1000)* in the X-register. Thereafter, you get the next term whenever you press × . For example, when you press × the first time, you calculate 1.10 × 1000. The result *(1100.00)* is displayed in the X-register and a new copy of the growth factor drops into the Y-register. Since a new copy of the growth factor is generated in T each time the stack drops, you never have to reenter it.

Manipulating Numbers

ENTER↑ is not the only key that positions numbers in the stack. The [g] [R↑] (roll up), [g] [R↓] and [g] [x⇄y] (roll down) key

sequences reposition numbers in the stack without any danger of losing numbers from the T-register.

Rotating the Stack

The [g] [R↑] and [g] [R↓] keys let you review the entire stack contents at any time. To see how these key sequences work, load the stack with the numbers 1 through 4 by pressing:

4 ENTER↑ 3 ENTER↑ 2 ENTER↑ 1

If you then press [g] [R↓], the stack contents are rotated

from this: **to this:**

4.00	1.00
3.00	4.00
2.00	3.00
1.	2.00
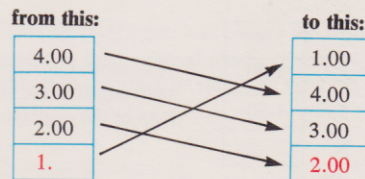
Now watch the stack contents that follow as we use the [g] [R↑] and [g] [R↓] keys to bring numbers in the stack one-by-one into the displayed X-register.

Press		Stack Contents	Comment
	T	2.00	Once again all of the numbers
[g] [R↓]	Z	1.00	are rearranged in the stack.
	Y	4.00	3.00 is now in the displayed
	X	3.00	X-register.
	T	3.00	The numbers are rotated down
[g] [R↓]	Z	2.00	one by one again. 4.00, which
	Y	1.00	was in the T-register, is now
	X	4.00	in the X-register.