The Power of Compounding

A sum of $1000 is deposited in an account that pays 6% annual interest compounded at the end of each year. Assuming there are no further deposits or withdrawals, how much money is in the account after 20 years?

Time in Account (years)	Current Year Number	Account Balance at Beginning of Year ($)	Interest to be Earned in the Current Year ($)	Account Balance at End of Year ($)
t	N	A(t)		A(N)
0	1	1000	100	1100
1	2	1100	110	1210
2	3			
3	4			
4	5			
5	6			
6	7			
7	8			
8	9			
9	10			
10	11			
11	12			
12	13			
13	14			
14	15			
15	16			
16	17			
17	18			
18	19			
19	20			
20	21			
21	22			
22	23			
23	24			
24	25			
25				

Monthly Compounding

A sum of $1000 is deposited in an account that pays 6% annual interest compounded at the end of each month. Assuming there are no further deposits or withdrawals, how much money is in the account after 20 years?

Daily Compounding

A sum of $1000 is deposited in an account that pays 6% annual interest compounded at the end of each day. Assuming there are no further deposits or withdrawals, how much money is in the account after 20 years?

Continuous Compounding

A sum of $1000 is deposited in an account that pays 6% annual interest compounded continuously. Assuming there are no further deposits or withdrawals, how much money is in the account after 20 years?