If Methuselah’s parents had put $100 in the bank for him at birth and he left it there, what would Methuselah have had at his death (969 years later) if interest was 8% compounded annually?

**Answer:** Interest is compounded one time per year, so the amount of money in the bank after \( t \) years is \( A(t) = A(0)(1 + r)^t \); so \( A(969) = 100(1.08)^{969} \). If you are doing this at home you can use your calculator to see that \( 100(1.08)^{969} \) is approximately equal to \( 2.4413 \times 10^{34} \) dollars!