Suppose a savings scheme pays an APR of 18\%, compounded quarterly. A single $2500 deposit, left in the scheme for five years will grow to how much?

Under the conditions of problem 1, how much should I deposit now as a single lump sum in order to have $20,000 in the scheme fifteen years hence?

Continuing with the problem-1 scheme, suppose I make a $100 deposit now, and further $100 deposits each quarter. What will my total savings be worth just after the twentieth of these deposits?

Your answer must show the “sum step” using summation notation.

What if we change problem 3 to have the deposits be annual? That is, suppose we are earning 18\%, compounded quarterly, and suppose I make twenty annual $100 deposits beginning right now. What will my total savings be worth just after the twentieth of these deposits?

Your answer must show the “sum step” using summation notation.

I wish to make a one-time lump-sum deposit in the problem-1 scheme so as to just cover one hundred $250 quarterly payments, the first due right now. How much should this deposit be?

Your answer must show the “sum step” using summation notation.