133. A man purchases a life insurance policy on his 40^{th} birthday. The policy will pay 5000 only if he dies before his 50^{th} birthday and will pay 0 otherwise. The length of lifetime, in years, of a male born the same year as the insured has the cumulative distribution function

$$F(t) = \begin{cases} 0, & \text{for } t \le 0 \\ 1 - e^{\frac{1-1.1^t}{1000}}, & \text{for } t > 0. \end{cases}$$

Calculate the expected payment to the man under this policy.

(A) 333

(B) 348

(C) 421

(D) 549

(E) 574