

44. An insurance policy pays 100 per day for up to 3 days of hospitalization and 50 per day for each day of hospitalization thereafter.

The number of days of hospitalization,  $X$ , is a discrete random variable with probability function

$$P(X = k) = \begin{cases} \frac{6-k}{15} & \text{for } k = 1, 2, 3, 4, 5 \\ 0 & \text{otherwise.} \end{cases}$$

Determine the expected payment for hospitalization under this policy.

- (A) 123
- (B) 210
- (C) 220
- (D) 270
- (E) 367