

44)

$K$	Insurance Payment	$\Pr(X=K)$
1	100	$\frac{5}{15}$
2	200	$\frac{4}{15}$
3	300	$\frac{3}{15}$
4	400	$\frac{2}{15}$
5	500	$\frac{1}{15}$

$$\text{Insurance Payment} = \begin{cases} 100 & K \\ 300 + 50(k-3) & \\ 0 & \end{cases}$$

 $K=1, 2, 3$  $K=4, 5$ 

otherwise.

$$E(\text{Insurance payment}) = 100 \times \frac{5}{15} + 200 \times \frac{4}{15} + 300 \times \frac{3}{15} + 350 \times \frac{2}{15} + 400 \times \frac{1}{15}$$

$$= 220$$

C