

53. Solution: D

Let W denote claim payments. Then $W = \begin{cases} y & \text{for } 1 < y \leq 10 \\ 10 & \text{for } y \geq 10 \end{cases}$

It follows that $E[W] = \int_1^{10} y \frac{2}{y^3} dy + \int_{10}^{\infty} 10 \frac{2}{y^3} dy = -\frac{2}{y} \Big|_1^{10} - \frac{10}{y^2} \Big|_{10}^{\infty} = 2 - 2/10 + 1/10 = 1.9$.