

53. An insurance policy reimburses a loss up to a benefit limit of 10 . The policyholder's loss, Y , follows a distribution with density function:

$$f(y) = \begin{cases} \frac{2}{y^3} & \text{for } y > 1 \\ 0, & \text{otherwise.} \end{cases}$$

What is the expected value of the benefit paid under the insurance policy?

- (A) 1.0
- (B) 1.3
- (C) 1.8
- (D) 1.9
- (E) 2.0