

49. You are given:

x	0	1	2	3
$\Pr[X = x]$	0.5	0.3	0.1	0.1

The method of moments is used to estimate the population mean, μ , and variance, σ^2 ,

by \bar{X} and $S_n^2 = \frac{\sum (X_i - \bar{X})^2}{n}$, respectively.

Calculate the bias of S_n^2 , when $n = 4$.

- (A) -0.72
- (B) -0.49
- (C) -0.24
- (D) -0.08
- (E) 0.00