

If random variable X is uniform on $[0, 1]$, then what is the variance of X^2 ?

- (a) $4/45$
- (b) $2/15$
- (c) $1/3$
- (d) $1/9$
- (e) $1/5$
- (f) $1/25$
- (g) $1/20$
- (h) 1
- (i) $1/6$
- (j) $1/12$
- (k) 2
- (l) None of these.