

180. The time to an accident follows an exponential distribution. A random sample of size two has a mean time of 6.

Let Y denote the mean of a new sample of size two.

Use the delta method to approximate the variance of the maximum likelihood estimator of $F_Y(10)$.

(A) 0.08

(B) 0.12

(C) 0.16

(D) 0.19

(E) 0.22