

218. The random variable X has survival function:

$$S_X(x) = \frac{\theta^4}{(\theta^2 + x^2)^2}$$

Two values of X are observed to be 2 and 4. One other value exceeds 4.

Calculate the maximum likelihood estimate of θ .

- (A) Less than 4.0
- (B) At least 4.0, but less than 4.5
- (C) At least 4.5, but less than 5.0
- (D) At least 5.0, but less than 5.5
- (E) At least 5.5