

235. You are given:

- (i) A random sample of losses from a Weibull distribution is:

595 700 789 799 1109

- (ii) At the maximum likelihood estimates of θ and τ , $\sum \ln(f(x_i)) = -33.05$.

- (iii) When $\tau = 2$, the maximum likelihood estimate of θ is 816.7.

- (iv) You use the likelihood ratio test to test the hypothesis

$$H_0 : \tau = 2$$

$$H_1 : \tau \neq 2$$

Determine the result of the test.

- (A) Do not reject H_0 at the 0.10 level of significance.
- (B) Reject H_0 at the 0.10 level of significance, but not at the 0.05 level of significance.
- (C) Reject H_0 at the 0.05 level of significance, but not at the 0.025 level of significance.
- (D) Reject H_0 at the 0.025 level of significance, but not at the 0.01 level of significance.
- (E) Reject H_0 at the 0.01 level of significance.