

199. Personal auto property damage claims in a certain region are known to follow the Weibull distribution:

$$F(x) = 1 - e^{-\left(\frac{x}{\theta}\right)^{0.2}}, \quad x > 0$$

A sample of four claims is:

130 240 300 540

The values of two additional claims are known to exceed 1000.

Determine the maximum likelihood estimate of θ .

- (A) Less than 300
- (B) At least 300, but less than 1200
- (C) At least 1200, but less than 2100
- (D) At least 2100, but less than 3000
- (E) At least 3000