

4) What is the value of the 99th percentile?

2, 2, 3, 4, 5, 5, 5, 6, 7, 8, 8, 8, 8, 8, 9, 9, 10, 11, 11, 12

$$\text{Soln: Value} = \frac{\text{Percentile}}{100} \times (n+1)$$

$$= \frac{99}{100} \times (20+1)$$

$$= 20.79 \Rightarrow \text{index position.}$$

We need the value between 20th & 21st position.

Since, there are only 20 data points, we take the value at 20th position.

So, the value at 99th Percentile = 12