Answer on Question 37685, Math, Statistics Let us find mean:

$$(21 + 19 + 23 + 19 + 23)/5 = 21$$

The standard deviation is

$$\sigma = \sqrt{\frac{21^2 + 19^2 + 23^2 + 19^2 + 23^2 - (21 + 19 + 23 + 19 + 23)^2/5}{N - 1}} = 2$$

Our degree of freedom is

$$df = 5 - 1 = 4$$

Our α is

$$\alpha = (1 - 0.99)/2 = 0.005$$

For df=4 and $\alpha = 0.005$ we find coefficient from t-distribution table, it is equal to

$$t = 4.604$$

Now, the 90% interval is

$$21 \pm t \cdot \frac{\sigma}{\sqrt{N}} = 21 \pm 4.604 \cdot \frac{2}{\sqrt{21}} \approx 21 \pm 2$$