5. The table below gives the carapace lengths of ten mature *Thenus orientalis* lobsters caught in the sea in the vicinity of Singapore. Suppose you wish to describe the variability of the carapace lengths of this population of lobsters. Find a 99% confidence interval for the population variance  $\sigma^2$ .

## Carapace Length (mm)

78	66	65	63	60	60	58	56	52	50
	00	0.5	0.5	00	00	50	50	<i>3</i> 2	50