1. BMW Company is testing the top speed of its new model X70 . It has tested 100 units and found the avg top speed to be 230Km/hr with a std dev of 10km/hr. Whereas company believes the avg top speed to be 260Km/hr. Company asks: Do you think being in Indian Road affects the top speed?

N= 100

Sample mean= 230km/hr

Standard Deviation = 10km/hr

Population Mean = 260km/hr

T=230-260/(10/Sqrt of n=-30/10/10

=-30

This means that the Indian road affects the top speed

1. On an average, males drink 2L water per day with standard deviation σ = 0.7L. We are planning for a full day trip for 50 Men with 110L of water.

With a Significance level of 5 %, can we say that we will run of water?

s.d = 0.7L

n= 50

Samples Mean = 110/50 = 2.2 l

Population mean of drinking water = 2

Zscore=2.2-2/0.099

2.02

Sample Sd Sd/Sqt of n

2/Sqrt of 50

0.2/0.28

0.714

* 1. on z table

0.9783