MSTB031

Practice questions

1. Why do we sample?
2. Elephants were counted in strip transects that were 2-km wide. A simple random sample of 15 transects were chosen from the 286 transects potentially available. The number of elephants counted were 1, 50, 21, 98, 2, 36, 4, 29, 7, 15, 86, 10, 21, 5, 4.

Estimate:

1. The population mean and place a bound on the error of estimation.
2. The total number of elephants in the area and place a bound on the error of estimation.
3. A 1-in-*k* systematic sample of 160 workers in a certain company is obtained from 3 200 workers in the company to estimate the proportion of workers in favour of a new intranet system. A total of 75 workers said they were in favour of the new intranet system.
4. Find the value of *k*.
5. Show how a 1-in-*k* systematic sample can be obtained for the population above. Use the value of *k* obtained in (1) above.
6. Estimate the proportion of workers not in favour of the new system.