

Assignment 3

Kushagra Gupta (cs21btech11033)

Abstract—This document contains the solution for Assignment 3 (NCERT Class 9 Exercise 14.2 Q.4)

14.2.4 [NCERT 9] : The heights of 50 students, measured to the nearest centimetres, have been found to be as follows:

161	150	154	165	168	161	154	162	150	151
162	164	171	165	158	154	156	172	160	170
153	159	161	170	162	165	166	168	165	164
154	152	153	156	158	162	160	161	173	166
161	159	162	167	168	159	158	153	154	159

TABLE I

- Represent the data given above by a grouped frequency distribution table, taking the class intervals as $160 - 165$, $165 - 170$, etc.
- What can you conclude about their heights from the table?

Solution:

- The grouped frequency distribution table is given below:

Heights (in cm)	Tally Marks	Frequency
150-155		1
155-160		1
160-165		2
165-170		2
170-175		7
Total		50

TABLE II
FREQUENCY DISTRIBUTION TABLE

- Clearly, the heights of most students belong in $(160 - 165)cm$ range with the sum of heights = $8045 cm$ and average height of:

$$\frac{8045}{50} = \boxed{160.9 \text{ cm}}$$