

Assignment 4

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Abstract—This document contains the solution for Assignment 3 (NCERT Class 9 Exercise 15.1 Q.13)

15.1.13 [NCERT 9] : In Q.1, Exercise 14.2, you were asked to prepare a frequency distribution table, regarding blood groups of 30 students. Use this table to determine the probability that a student of this class, selected at random, has blood group AB.

Solution: The frequency distribution table which we obtained on solving Q14 of exercise 14.2 is given below:

Blood Group	Frequency
O	12
A	9
B	6
AB	3

TABLE I
FREQUENCY DISTRIBUTION

Let's denote the outcome of the experiment by a random variable $X \in \{0, 1, 2, 3\}$, where $X = 0$ denotes occurrence of blood group O, $X = 1$ denotes occurrence of blood group A, $X = 2$ denotes occurrence of blood group B and $X = 3$ denotes occurrence of blood group AB.

(i) Probability that the blood group of selected student is AB

$$\Pr(X = 3) = \frac{3}{30} \quad (1)$$

$$= \frac{1}{10} = 0.1 \quad (2)$$

\therefore Required Probability of getting blood group AB is 0.1