

Assignment -2 in L^AT_EX

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Question 10.13.1.26: A school has five houses A, B, C, D and E. A class has 23 students, 4 from house A, 8 from house B, 5 from house C, 2 from house D and rest from house E. A single student is selected at random to be the class monitor. The probability that the selected student is not from A, B and C is ?

Solution:

Number of students in the class = $n(T)$ (1)

$$= 23 \quad (2)$$

W=selected student is not from A,B and C.

No of students in A,B and C=4+8+5=17

$$n(W) = \text{Remaining no of students} \quad (3)$$

$$= 23 - 17 \quad (4)$$

$$= 6 \quad (5)$$

$$\Pr(W) = \frac{n(W)}{n(T)} \quad (6)$$

$$= \frac{6}{23} \quad (7)$$

Therefore,probability of not selecting a student from A,B and C is,

$$\Pr(W) = \frac{6}{23} \quad (8)$$