

Assignment -2 in L^AT_EX

Muzaan Mohammed Faizel A P
EE22BTECH11036

Question 10.13.1.26: There are four men and six women on the city council. If one council member is selected for a committee at random, how likely is it that it is a woman?

Solution:

| GENDER | STRENGTH |
|--------|----------|
| MALE | 4 |
| FEMALE | 6 |

TABLE 0: Council distribution

$$X = \begin{cases} 0, & \text{if member is a man} \\ 1, & \text{if member is a woman} \end{cases} \quad (1)$$

With reference to Table 0

$$p_X(1) = \frac{6}{6+4} = \frac{6}{10} \quad (2)$$

The desired probability is:

$$p_X(1) = \frac{6}{10} \quad (3)$$