

1. A firm can produce 3 types of cloth say A, B and C. Three kinds of wool are required for it say red, green and blue. One unit length of type A cloth needs 2 metres of red wool and 3 metres of blue wool. One unit length of B type cloth needs 3 metres of red wool, 2 metres of green wool and 2 metres of blue wool; and 1 unit length of type C cloth needs 5 metres of green wool and 4 metres of blue wool. The firm has a stock of 8 metres of red wool, 10 metres of green wool and 15 metres of blue wool, it is assumed that the income obtained from one unit length of type A cloth is ` 3, of B ` 5 and of C ` 4. Determine how the firm should use the available material so as to maximize the income from the finished cloth. Formulate the above problem as LPP.
2. Suppose a firm produces two products A and B. For producing the each unit of product A, 4 Kg of Raw material and 6 labour hours are required. While, for the production of each unit of product B, 4 kg of raw material and 5 labour hours is required. The total availability of raw material and labour hours is 60 Kg and 90 Hours respectively (per week). The unit price of Product A is Rs 35 and of product, B is Rs 40. Formulate the Problem to maximize the profit and solve the problem by using Simplex procedure to get the optimal value of the function.