

1. A company manufactures a type of product in three different production plants: P1, P2 and P3. Each of these production plants can produce up to 1500 units per month. The company supplies four customers who require each 1000, 1200, 1500 and 1000 units per month. The company makes a benefit of 110 units for the manufacture of each unit of product. The unit transportation costs from each production plant to each customer are displayed below:

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	1	2	3	4
P1	30	10	25	10
P2	15	25	30	10
P3	20	30	15	20

Formulate the matrix format of the transportation problem for the given production problem, so as to maximize the company's revenue:

2. Three suppliers A, B and C, each produce road grit which has to be delivered to council depots W, X, Y and Z. The stock held at each supplier and the demand from each depot is known. The cost, in pounds, of transporting one lorry load of grit from each supplier to each depot is also known. This information is given in the table

	<b>Depot W</b>	<b>Depot X</b>	<b>Depot Y</b>	<b>Depot Z</b>	<b>Supply</b>
<b>Supplier A</b>	180	110	130	290	14
<b>Supplier B</b>	190	250	150	280	16
<b>Supplier C</b>	240	270	190	120	20
<b>Demand</b>	11	15	14	10	50