

14/07/21
Ans. Step 1 → To make a preliminary table.

Product → Table Chair Available hours

Profit per unit (£)	7	5	-
Varnishing (hrs)	4	3	240
Carpentry (hrs)	2	1	100

Step 2 → Framing objective function.

Let x_1 and x_2 be the number of tables and chairs to be produced respectively.

$$\text{Max}(Z) = 7x_1 + 5x_2$$

Step 3 → Formulating constraints

$$\text{Varnishing} - 4x_1 + 3x_2 \leq 240$$

$$\text{Carpentry} - 2x_1 + 1x_2 \leq 100$$

Non negativity constraint $\rightarrow x_1, x_2 \geq 0$

• Condition for applying graphical Method:

1. It is applicable only when there are 2 variables.

If there are more than 2 variables, then this method will not be applied.