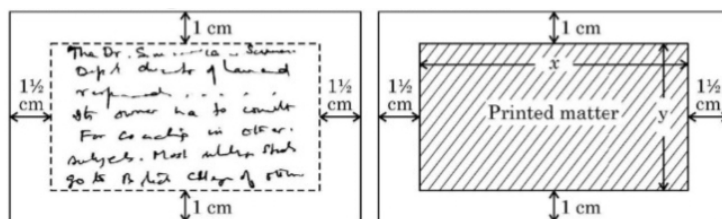


# 1 Calculus

1. A rectangular visiting card is to contain  $24 \text{ sq.cm}$  of printed matter. The margins at the top and bottom of the card are to be  $1 \text{ cm}$  and the margins on the left and right are to be  $1\frac{1}{2} \text{ cm}$  as shown below :



On the basis of the above information, answer the following questions:

- (i) Write the expression for the area of the visiting card in terms of  $x$ .
- (ii) Obtain the dimensions of the card of minimum area.