Class:X Maths Ch.3
Worksheet 2 of Module 5

1.Solve the following pairs of equations by reducing them to a pair of linear equations:

i.
$$\frac{2}{\sqrt{x}} + \frac{3}{\sqrt{y}} = 2$$
$$\frac{4}{\sqrt{x}} - \frac{9}{\sqrt{y}} = -1$$

ii.
$$\frac{5}{x - 1} + \frac{1}{y - 2} = 2$$
$$\frac{6}{x - 1} - \frac{3}{y - 2} = 1$$

2. Formulate the following problems as a pair of equations, and hence find their solutions:

   (i) Ritu can row downstream 20 km in 2 hours, and upstream 4 km in 2 hours. Find her speed of rowing in still water and the speed of the current.

   (ii) 2 women and 5 men can together finish an embroidery work in 4 days, while 3 women and 6 men can finish it in 3 days. Find the time taken by 1 woman alone to finish the work, and also that taken by 1 man alone.

   (iii) Roohi travels 300 km to her home partly by train and partly by bus. She takes 4 hours if she travels 60 km by train and the remaining by bus. If she travels 100 km by train and the remaining by bus, she takes 10 minutes longer. Find the speed of the train and the bus separately.