Pair of Linear Equations in two Variables: Worksheet -4

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

(i)
$$\frac{5}{x-1} + \frac{1}{y-2} = 2$$
$$\frac{6}{x-1} - \frac{3}{y-2} = 1$$

(ii)
$$\frac{x+y}{xy} = 2$$
$$\frac{x-y}{xy} = 6$$

(iii)
$$\frac{2}{\sqrt{x}} + \frac{3}{\sqrt{y}} = 2$$
$$\frac{4}{\sqrt{x}} - \frac{9}{\sqrt{y}} = 1$$

(iv)
$$\frac{5}{x+y} - \frac{2}{x-y} = 1$$
$$\frac{15}{x+y} + \frac{7}{x-y} = 10 \quad \text{where } x \neq 0, y \neq 0$$