

$$6 \quad 2x + 3y - 8 = 0$$

(i) For intersecting lines

$$\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$$

other equation is $4x - 9y - 33 = 0$

(ii) For parallel lines

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$$

one such equation is $4x + 6y - 15 = 0$

(iii) For coincident lines

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$$

one such equation is
 $10x + 15y - 40 = 0$

$$7. \quad x - y + 1 = 0$$

$$\Rightarrow y = x + 1$$

$$3x + 2y - 12 = 0$$

$$\Rightarrow x = \frac{12 - 2y}{3}$$

x	0	-1	1
y	1	0	2

x	4	2	0
y	0	3	6

