



1. $y = 3x + 5$
 (iii) inf. many sols

2. (i) $2x + y = 7$
 $\Rightarrow y = 7 - 2x$

x	0	1	2	3
y	7	5	3	1

2(ii) $\pi x + y = 9$
 $\Rightarrow y = 9 - \pi x$

x	0	1	2	3
y	9	$9 - \pi$	$9 - 2\pi$	$9 - 3\pi$

2(iii) $x = 4y$

x	0	4	8	12
y	0	1	2	3

3.i LHS = $x - 2y$
 Put $x = 0, y = 2$
 $= 0 - 2 \times 2$
 $= 0 - 4$
 $= -4$
 \neq RHS
 \therefore not a sol.

3(ii) LHS = $x - 2y$
 Put $x = 2, y = 0$
 LHS = $2 - 2 \times 0$
 $= 2$
 \neq RHS
 \therefore not a sol.

3(iii) LHS = $x - 2y$
 Put $x = 4, y = 0$
 $= 4 - 2 \times 0$
 $= 4 - 0$
 $= 4$
 $=$ RHS

$(4, 0)$ is a solution

3(iv) LHS = $x - 2y$
 Put $x = \sqrt{2}, y = 4\sqrt{2}$
 $= \sqrt{2} - 2 \times 4\sqrt{2}$
 $= \sqrt{2} - 8\sqrt{2}$
 $= -7\sqrt{2}$
 \neq RHS
 \therefore not a solution

3(v) LHS = $x - 2y$
 Put $x = y = 1$
 $= 1 - 2 \times 1$
 $= 1 - 2$
 $= -1$
 \neq RHS
 \therefore not a solution

4. $x = 2, y = 1$ is a solution of $2x + 3y = k$
 $\therefore 2 \times 2 + 3 \times 1 = k$
 $\Rightarrow k = 4 + 3$
 $= 7$