

$$\begin{aligned}
 1 \quad \text{LHS} &= 3x + 4y \\
 \text{Put } x &= 0, y = 3 \\
 &= 3 \times 0 + 4 \times 3 \\
 &= 0 + 12 \\
 &= 12 \\
 &= \text{RHS}
 \end{aligned}$$

\therefore true

$$\begin{aligned}
 2 \quad \text{LHS} &= x + 2y \\
 \text{Put } x &= 0, y = 7 \\
 &= 0 + 2 \times 7 \\
 &= 14 \\
 &\neq \text{RHS}
 \end{aligned}$$

\therefore false

$$\begin{aligned}
 3 \quad \text{LHS} &= x + y \\
 \text{Put } x &= -3, y = 3 \\
 &= -3 + 3 \\
 &= 0 \\
 &= \text{RHS}
 \end{aligned}$$

$$\begin{aligned}
 \text{Put } x &= -1, y = 1 \\
 &= -1 + 1 \\
 &= 0 \\
 &= \text{RHS}
 \end{aligned}$$

\therefore true

4. true

$$\begin{aligned}
 x &= 3 \\
 \Rightarrow x + 0y &= 3
 \end{aligned}$$

x	3	3	3
y	0	1	2

it is a line \parallel to y-axis at a distance of 3 units in +ve direction

$$\begin{aligned}
 5 \quad \text{LHS} &= x - y + 2 \\
 \text{Put } x &= 3, y = -5 \\
 &= 3 + 5 + 2 \\
 &= 10 \\
 &\neq \text{RHS}
 \end{aligned}$$

\therefore False

6. False
every point on the graph, represents a solution

7. False
graph of a linear eqn in two var. is always a line.