Hough Transform

* Using hough transform, show that following pts are collinear - Also find eqn of line.

(1,2), (2,3), (3,4)

→ Eqn of line, $y = mx + c$

$\therefore c = -mx + y$. ⇒ Parameter Space

Step1 ⇒ For each pt, compute ~~m~~ c by substituting diff. m

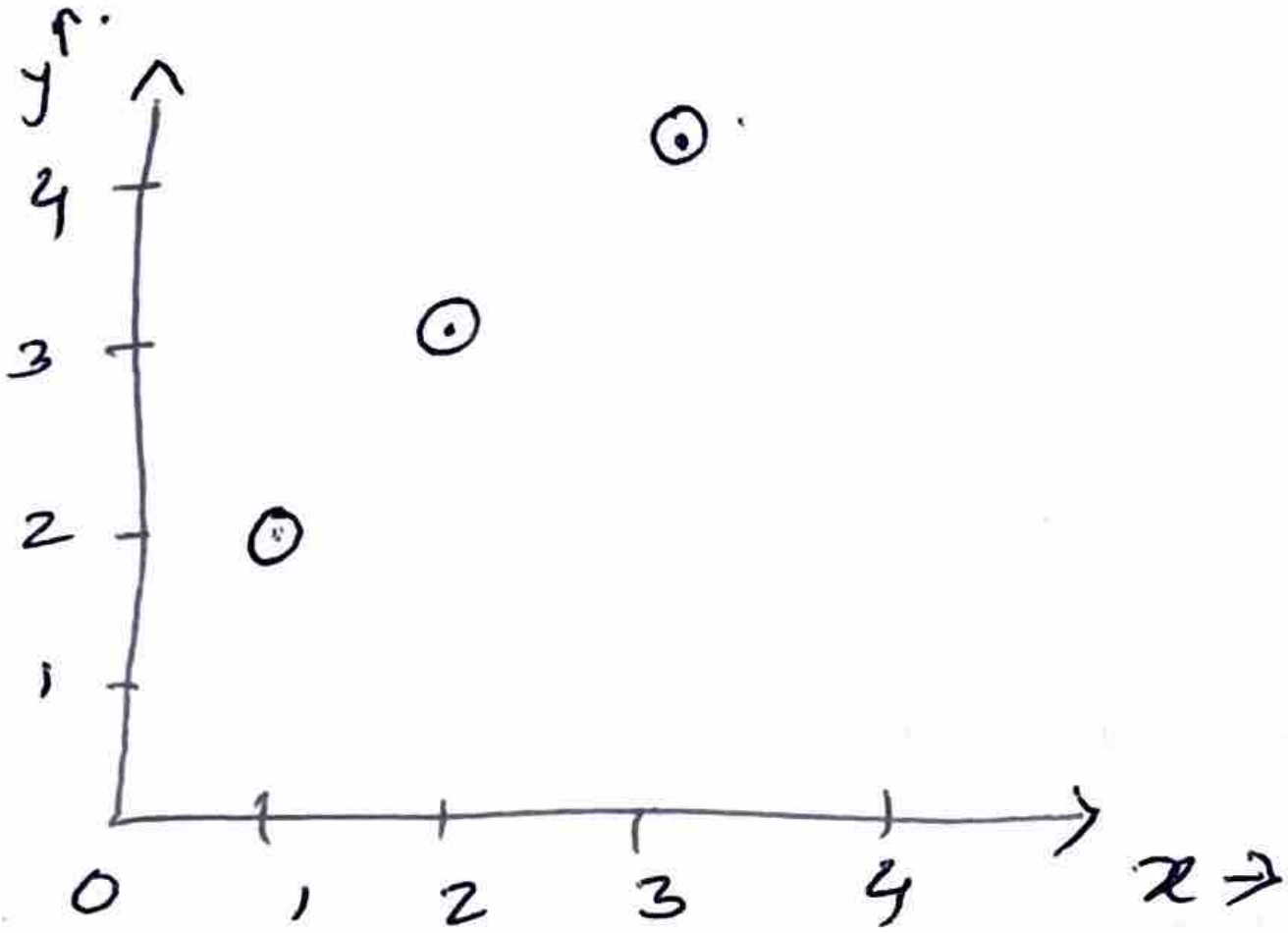


Image space.

1) $(x,y) = (1,2)$

$c = -m + 2$

$m = 0, \quad c = 2$

$m = 1, \quad c = 1$

$m = 2, \quad c = 0$

$(x,y) = (2,3)$

$c = -2m + 3$

$m = 0, \quad c = 3$

$m = 1, \quad c = 1$

$m = 2, \quad c = -1$

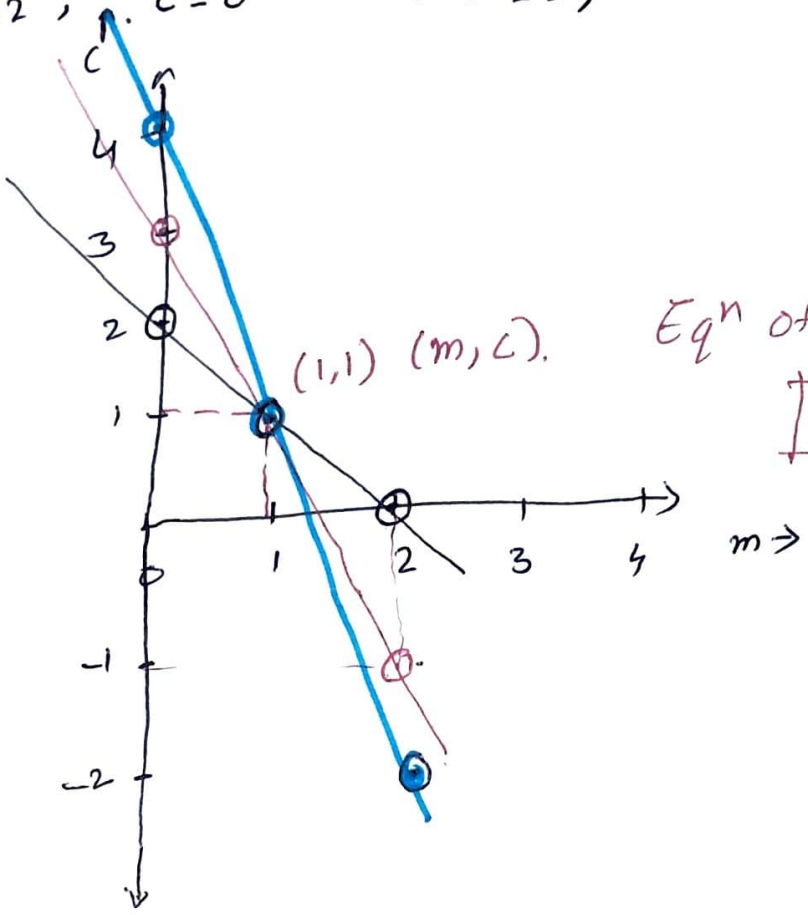
$(x,y) = (3,4)$

$c = -3m + 4.$

$m = 0, \quad c = 4$

$m = 1, \quad c = 1$

$m = 2, \quad c = -2.$



Eqn of line,

$$y = x + 1$$

Parameter Space.