(i) $m = \frac{4}{5}$ (line 1) $\rightarrow \frac{5-1}{7-2}$

$(2,1) - (7,5)$

$x = 2,\ y = 1$

$x = 3,\ y = 1 + \frac{4}{5} = 1\frac{4}{5} = \frac{9}{5} \approx 2$

$x = 4,\ y = \frac{9}{5} + \frac{4}{5} = \frac{13}{5} \approx 3$

$x = 5,\ y = \frac{13}{5} + \frac{4}{5} = 17/5 \approx 3$

$x = 6,\ y = 17/5 + 4/5 = 21/5 \approx 4$

$x = 7,\ y = 5$

(i) $m = -\frac{7}{5}$ (line 2) $\Rightarrow \frac{1-8}{5-0}$ $(0,8) - (5,1)$

$y = 1,\ x = 5$

$y = 2,\ x = 5 - \frac{5}{7} = 30/7 \approx 4$

$y = 3,\ x = 30/7 - 5/7 = 25/7 \approx 4$

$y = 4,\ x = 25/7 - 5/7 = 20/7 \approx 3$

$y = 5,\ x = 20/7 - 5/7 = 15/7 \approx 2$

$y = 6,\ x = 15/7 - 5/7 = 10/7 \approx 1$

$y = 7,\ x = 10/7 - 5/7 = 5/7 \approx 1$

$y = 8,\ x = 0$

(ii) $\Delta x = 5$ $\Delta y = 4$ $2\Delta x = 10$ $2\Delta y = 8$

$2\Delta y - 2\Delta x = -2$

$P_0 = 2\Delta y - \Delta x = 8 - 5 = 3$

k	P_k	(x,y)
0	3	(3, 2)
1	1	(4, 3)
2	-1	(5, 3)
3	7	(6, 4)

$P_1 = P_0 + (-2)$
$= 3 - 2 = 1$

$P_2 = P_1 + (-2)$
$= 1 - 2 = -1$

$P_3 = P_2 + 2\Delta y$
$= -1 + 8 = 7$

(ii) $\Delta x = 5$ $\Delta y = 7$ $2\Delta x = 10$ $2\Delta y = 14$ $2\Delta x - 2\Delta y = -4$

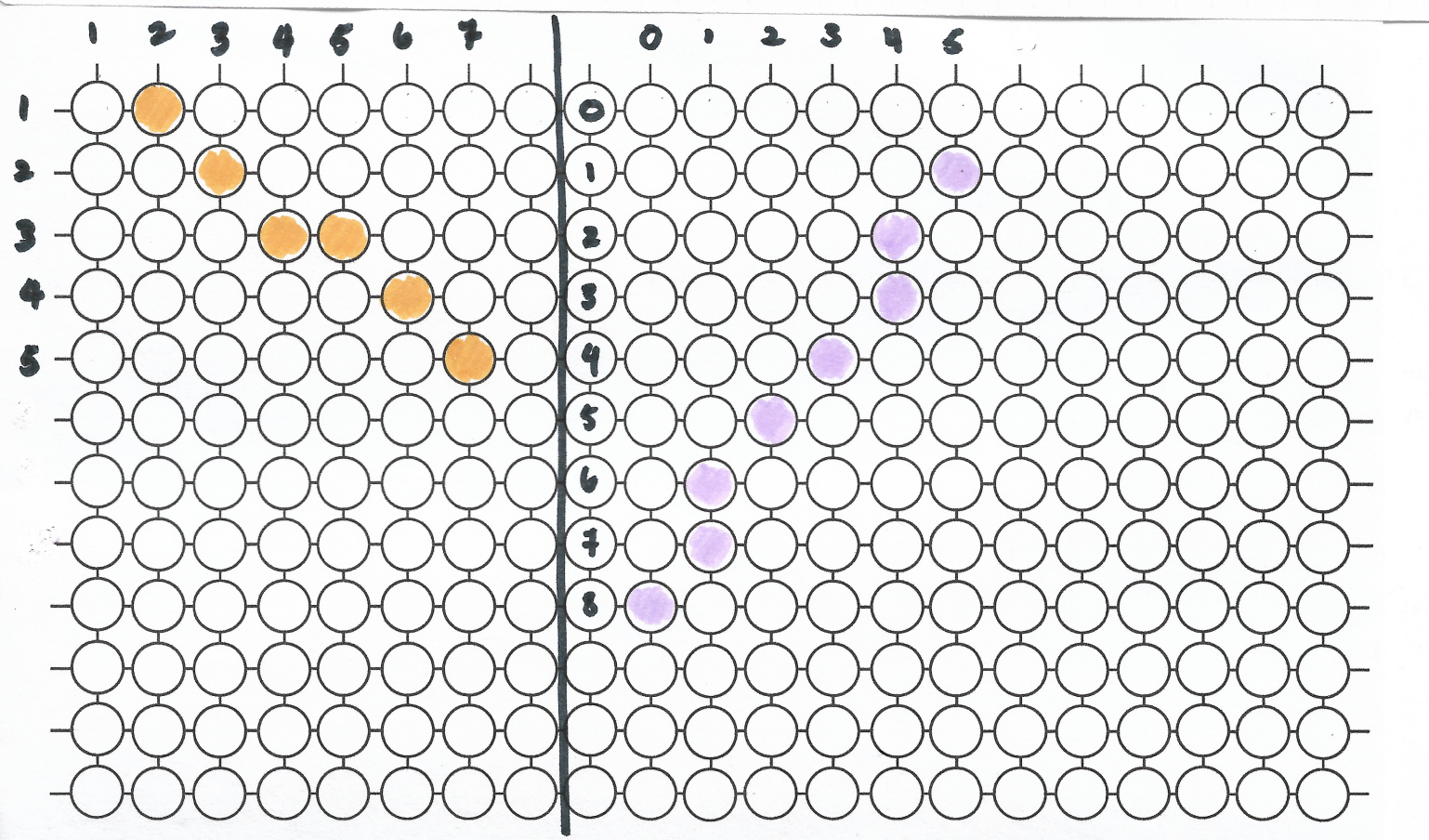
$P_0 = 2\Delta x - \Delta y = 10 - 7 = 3$ $\left|-\frac{7}{5}\right| > 1$

k	P_k	(x,y)
0	3	(1, 7)
1	-1	(1, 6)
2	9	(2, 5)
3	5	(3, 4)
4	1	(4, 3)
5	-3	(4, 2)

$P_1 = P_0 + (2\Delta x - 2\Delta y)$
$= 3 + (-4) = -1$

$P_2 = P_1 + 2\Delta x = -1 + 10 = 9$

$P_3 = P_2 + (2\Delta x - 2\Delta y)$
$= 9 + (-4) = 5$

$P_4 = P_3 + (-4) = 5 - 4 = 1$

$P_5 = P_4 + (-4) = 1 - 4 = -3$