

Garis Biasa

a) (-5, 5) dan (1, 2)

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - 5}{1 - (-5)} = \frac{-3}{6} = -\frac{1}{2} = -0.5$$

x	Δx	x	y	Δy	y	[x]	[y]
-5	-	-5	5	0.5	4.5	-5	5
-5	1	-4	4.5	-0.5	4	-4	5
-4	1	-3	4	-0.5	3.5	-3	4
-3	1	-2	3.5	-0.5	3	-2	4
-2	1	-1	3	-0.5	2.5	-1	3
-1	1	0	2.5	-0.5	2	0	3
0	1	1				1	2

b) (4, 3) dan (8, -2)

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - 3}{8 - 4} = \frac{-5}{4} = -1 \frac{1}{4} = -1.25$$

x	Δx	x	y	Δy	[x]	[y]
4	-	4	3	-	4	3
4	1	5	3	-1.25	5	2
5	1	6	1.75	-1.25	6	1
6	1	7	0.5	-1.25	7	-1
7	1	8	-0.75	-1.25	8	-2

(2, 3) dan (5, 3)

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{3 - 3}{5 - 2} = \frac{0}{3} = 0$$

x	Δx	x	y	Δy	y	[x]	[y]
2	-	2	3	-	3	2	3
2	1	3	3	0	3	3	3
3	1	4	3	0	3	4	3
4	1	5	3	0	3	5	3

d) (2,3) dan (2,5)

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{5-3}{2-2} = \frac{2}{0}$$

x	dx	x	y	dy	y	[x]	[y]
2	-	2	3	-	3	2	3
2	0	2	3	1	4	2	4
2	0	2	4	1	5	2	5

e) (6,4) dan (2,1)

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{1-4}{2-6} = \frac{3}{4} = 0,75$$

x	dx	x	y	dy	y	[x]	[y]
6	-	6	4	-	4	6	4
6	-1	5	4	-0,75	3,25	5	3
5	-1	4	3,25	-0,75	2,5	4	3
4	-1	3	2,5	-0,75	1,75	3	2
3	-1	2	1,75	0,75	1	2	1

Line DDA

a) (-5,5) dan (1,2)

$$\Delta x = 1 - (-5) = 6$$

$$\Delta y = 2 - 5 = -3$$

1. $| \Delta x | = 6$ (Δy $| -3 |$: step = 6)

2. line = $\Delta y / \Delta x = -0,5$

$$y_{inc} = -3/6 = -0,5$$

$$\Delta x = 6$$

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

b) (4,3) dan (8,-2)

$$Dx = 8 - 4 = 4$$

$$Dy = -2 - 3 = -5$$

$$|Dx| = 4 \quad |Dy| = 5 \quad \text{Step} = |Dy| = 5$$

$$x_{inc} = 4/5 = 0.8$$

$$y_{inc} = -5/5 = -1$$

k	x	y	x, y
0	4	3	(4,3)
1	5.2	2	(5.2, 2)
2	6.4	1	(6.4, 1)
3	7.2	0	(7.2, 0)
4	8	-1	(8, -1)
5	8	-2	(8, -2)

c) (2,3) dan (5,3)

$$Dx = 5 - 2 = 3$$

$$Dy = 3 - 3 = 0$$

$$|Dx| = 3 \quad |Dy| = 0 \quad \text{Step} = |Dx| = 3$$

$$x_{inc} = 3/3 = 1$$

$$y_{inc} = 0/3 = 0$$

k	x	y	x, y
0	2	3	(2,3)
1	3	3	(3,3)
2	4	3	(4,3)
3	5	3	(5,3)

d) (2,3) dan (2,5)

$$Dx = 2 - 2 = 0$$

$$Dy = 5 - 3 = 2 \quad \text{Step} = |Dy| = 2$$

$$x_{inc} = 0/2 = 0$$

$$y_{inc} = 2/2 = 1$$

k	x	y	x, y
0	2	3	(2,3)
1	2	4	(2,4)
2	2	5	(2,5)

e) (6,4) dan (2,1)

$$Dx = 2 - 6 = -4$$

$$Dy = 1 - 4 = -3$$

$$|Dx| = 4 \quad |Dy| = 3 \quad \text{Step} = |Dx| = 4$$

$$x_{inc} = -4/4 = -1$$

$$y_{inc} = -3/4 = -0.75$$

k	x	y	x, y
0	6	4	(6,4)
1	5	3.25	(5, 3.25)
2	4	2.5	(4, 2.5)
3	3	1.75	(3, 1.75)
4	2	1	(2, 1)