

Gading Raditya Pratama

31A21

50422596

No Rabu

Date 30 Oktober 2024

Grafik Komputer

Titik Koordinat $\rightarrow (1,2) (3,6)$
 $x_1 y_1 x_2 y_2$

DDA

$$m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$= \frac{6 - 2}{3 - 1} = \frac{4}{2} = 2$$

$$\begin{aligned} 0 \leq m < 1 & \rightarrow x_n = x_1 + 1 \\ m < 0 & \rightarrow y_n = y_1 + m \end{aligned}$$

$$\begin{aligned} m \geq 1 & \rightarrow x_n = x_1 + 1/m \\ \Delta y > \Delta x & \rightarrow y_n = y_1 + 1 \end{aligned}$$

	x_0, y_0	m	x_n, y_n
0	1, 2	2	2, 3
1	2, 3	3	2, 4
2	2, 4	2	2, 5
3	2, 5	1	3, 6

Bresenham

$$P_0 = 2\Delta y - \Delta x$$

$$= 2(4) - 2$$

$$= 6$$

$$P(+)=2\Delta y-2\Delta x$$

$$= 2(4) - 2(2)$$

$$= 4$$

$$P(-)=2\Delta y$$

$$= 2(4)$$

$$= 8$$

$$x_{n+1}, y_{n+1}$$

$$x_{n+1}, y_n$$

	x_0, y_0	P	x_n, y_n
0	1, 2	6	2, 3
1	2, 3	10	2, 4
2	2, 4	14	3, 5
3	3, 5	18	3, 6

Grafik

6			
5			
4			
3			
2			
	1	2	3

Keterangan : ■ = DDA

■ = Bresenham