

\* DDA

(2,3)  $\rightarrow$  (10,8)

$$0 \leq m < 1$$

$$0y < Dx$$

$$\begin{cases} x_n = x + 1 \\ y_n = y + m \end{cases}$$

$$\frac{Dy}{Dx} = \frac{8-3}{10-2} = \frac{5}{8} = 0,625$$

$$m \geq 1$$

$$0y > Dx$$

$$\begin{cases} x_n = x + 1/m \\ y_n = y + 1 \end{cases}$$

$$\begin{matrix} 0,5 \geq \uparrow \\ 0,5 < \downarrow \end{matrix}$$

Tabel DDA

| $x_0, y_0$ | $m$  | $x_n, y_n$ |
|------------|------|------------|
| 2, 3       | 0,62 | 3, 4       |
| 3, 4       | 0,57 | 4, 5       |
| 4, 5       | 0,5  | 5, 6       |
| 5, 6       | 0,4  | 6, 6       |
| 6, 6       | 0,5  | 7, 7       |
| 7, 7       | 0,33 | 8, 7       |
| 8, 7       | 0,5  | 9, 8       |
| 9, 8       | 0    | 10, 8      |

|    |  |  |  |  |  |  |  |  |  |
|----|--|--|--|--|--|--|--|--|--|
| 8  |  |  |  |  |  |  |  |  |  |
| 7  |  |  |  |  |  |  |  |  |  |
| 6  |  |  |  |  |  |  |  |  |  |
| 5  |  |  |  |  |  |  |  |  |  |
| 4  |  |  |  |  |  |  |  |  |  |
| 3  |  |  |  |  |  |  |  |  |  |
| 2  |  |  |  |  |  |  |  |  |  |
| 3  |  |  |  |  |  |  |  |  |  |
| 4  |  |  |  |  |  |  |  |  |  |
| 5  |  |  |  |  |  |  |  |  |  |
| 6  |  |  |  |  |  |  |  |  |  |
| 7  |  |  |  |  |  |  |  |  |  |
| 8  |  |  |  |  |  |  |  |  |  |
| 9  |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |

\* Bresenham

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

$$-P(x) = 2\Delta y - 2\Delta x = -6 \quad (x+1, y+1)$$

$$-P(-) = 2\Delta y = 10 \quad (x+1, y)$$

$$k_{ref} = * \rightarrow \text{DDA}$$

$$\bullet \rightarrow \text{Bresenham}$$

| $x_0, y_0$ | $P$ | $x_n, y_n$ |
|------------|-----|------------|
| 2, 3       | 2   | 3, 4       |
| 3, 4       | -4  | 4, 4       |
| 4, 4       | 6   | 5, 5       |
| 5, 5       | 0   | 6, 6       |
| 6, 6       | -6  | 7, 6       |
| 7, 6       | 4   | 8, 7       |
| 8, 7       | -2  | 9, 7       |
| 9, 7       | 8   | 10, 8      |