We use the simple DDA algorithm to a line with starting point (2,2) and ending point (6,7) on a fixed based display.

Slope, $m = \frac{7-2}{6-2} = \frac{5}{4} = 1.25$

$m = \frac{1}{m} = \frac{1}{1.25} = 0.8$

Now, $y = 2$

$y = 2+1$ [$\because y = y+1$]

$= 3$

$y = 3+1$

$= 4$

$y = 4+1$

$= 5$

$y = 5+1$

$= 6$

$y = 6+1$

$= 7$

$x = 2$

$x = 2+0.8$ [$x = x+m$]

$= 2.8$

$= 3$

$x = 2.8+0.8$

$= 3.6$

$= 4$

$x = 3.6+.8 = 4.4$

$x = 4.4+0.8 = 5.2 = 5$

$x = 5.2+.8 = 6$

Draw a line with starting point (2,0) and ending point (7.4) on a pixel based

Now,

$$m = \frac{4.0}{7.2} = \frac{6}{4} = 0.8$$

$x_1 = 2$ $\quad y_1 = 0$

$x_2 = 2+1$ $\quad y_2 = 0+0.8 = 0.8 = 1$

$= 3$ $\quad y_3 = 0.8+0.8 = 1.6 = 2$

$x_3 = 4$ $\quad y_4 = 1.6+8 = 2.4 = 2$

$x_4 = 5$

$x_5 = 6$ $\quad y_5 = y+m = 2.4+8 = 3.2 = 3$

$x_6 = 7$ $\quad y_6 = y+m = 3.2+.8 = 4$

The endpoints of given line are (0,0) and (6,18) compote each value of y as x steps from 0 to 6 and plot the result.

$$m = \frac{18-0}{6-0} = \frac{18}{6} = 3$$

and, $b = y_{start} - m.x_{start}$

$= 0 - 3.0$

$= 0$

1st step, $x = 0$; $y = 0$

2nd step, $x = 0+1$; $y = 3.1+0$

$= 1$ $= 3$

3rd step, $x = 1+1$; $y = 3.2+0$

$= 2$ $= 6$

4th step, $x = 2+1$; $y = 3.3+0$

$= 3$ $= 9$

5th step, $x = 3+1$; $y = 3.4+0$

$= 4$ $= 12$

6th step, $x = 4+1$; $y = 3.5+0$

$= 5$ $= 15$

7th step, $x = 5+1$; $y = 3.6+0$

$= 6$ $= 18$