Direct Line Drawing Algo –

Line equation → $y = mx + b$

Where x independent variable and
y dependent variable

So we can increase x by 1 to get the next pixel and y will be calculated for x with line equation.

Summary $x \Leftarrow x+1$
$y = mx+b$

Algo:

1. Input (x_s, y_s) - starting pixel
   (x_e, y_e) Ending pixel
2. If $(x_s > x_e)$, then swap. $x_s \leftrightarrow x_e$
   $y_s \leftrightarrow y_e$
3. Initialization $x = x_s$, $y = y_s$
4. $m = (y_e - y_s) / (x_e - x_s)$
5. $b = y_s - mx_s$
6. Loop: setpixel (x, y) with color
   $x = x+1$
   $y = mx+b$
   Round (y)
   if $(x \leq x_e)$ go to Loop
   otherwise exit