Algorithm: Bresenham Line Drawing Algorithm (BLA)

Step 1: Start the program.

Step 2: Read the starting point (x1,y1)and ending point (x2,y2)from the user.

Step 3: Calculate the differences:

- dx=|x2−x1|
- dy=|y2−y1|

Step 4: Determine the step direction:

- If x2≥x1, set sx=1, else sx=−1
- If y2≥y1, set sy=1, else *sy*=−1

Step 5: Initialize the starting point:

- Set x=x1, y=y1

Step 6:
If dx≥dy (slope ≤ 1):

a. Initialize the decision parameter
p=2dy−dx

b. Repeat for dx+1 steps:

- Plot the point (x,y)(
- Increment x=x+sx
- If p≥0:
    - Increment y=y+sy
    - Update p=p+2(dy−dx)
- Else:
    - Update p=p+2dy

Step 7:
Else (slope > 1):

a. Initialize the decision parameter
p=2dx−d

b. Repeat for dy+1 steps:

- Plot the point (x,y)
- Increment y=y+sy
- If p≥0:
    - Increment x=x+sx
    - Update p=p+2(dx−dy)

- Else:
    - Update p=p+2dx

Step 8: Continue until the end point (x2,y2) is reached.

Step 9: Display the plotted points to form the line.

Step 10: Stop the program.