

```

1  import matplotlib.pyplot as plt
2
3  def draw_line_Bresenham(x1, y1, x2, y2):
4      points = []
5      dx = x2 - x1
6      dy = y2 - y1
7
8      x, y = x1, y1
9
10     points.append((x, y))
11
12     p = 2 * dy - dx
13
14     for _ in range(dx):
15         x += 1
16         if p < 0:
17             p = p + 2 * dy
18         else:
19             p = p + 2 * dy - 2 * dx
20             y += 1
21         points.append((x, y))
22
23     return points
24
25 def plot_line(points, title):
26     x_values, y_values = zip(*points)
27     plt.plot(x_values, y_values, marker='o')
28     plt.title(title)
29     plt.xlabel('X-axis')
30     plt.ylabel('Y-axis')
31     plt.grid(True)
32     plt.show()
33
34 # Example usage:
35 x1, y1 = 2, 3
36 x2, y2 = 9, 8
37
38 # Bresenham's algorithm
39 bresenham_points = draw_line_Bresenham(x1, y1, x2, y2)
40 plot_line(bresenham_points, 'Bresenham\'s Line Drawing')
41

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