BRESENHAM'S LINE ALGORITHM

Bresenham Line (X_1, Y_1, X_N, Y_N):

Description: Here X_1 and Y_1 denote the starting x – coordinate and y – coordinate of the line and X_N and Y_N denote the ending x – coordinate and y – coordinate.

```
1.    Set D_X = X_N – X_1 and D_Y = Y_N – Y_1
2.    Set D_i = 2D_Y – D_X
3.    Set D_S = 2D_Y and D_T = 2(D_Y – D_X)
4.    Call PutPixel(X_1, Y_1)
5.    Repeat While (X_1 < X_N)
6.         Set X_1 = X_1 + 1
7.         If (D_i < 0) Then
8.              Set D_i = D_i + D_S
9.         Else
10.             Set Y_1 = Y_1 + 1
11.             Set D_i = D_i + D_T
           [End of If]
12.        Call PutPixel(X_1, Y_1)
      [End of While]
13.   Exit
```