

```

1
2
3 Step1:Calculate positions of both endpoints
4       of the line
5 Step2:Perform OR operation on both of these
6       end-points
7 Step3:If the OR operation gives 0000
8       Then
9           line is considered to be visible
10      else
11          Perform AND operation on both endpoints
12      If And ≠ 0000
13          then the line is invisible
14      else
15          And=0000
16      Line is considered the clipped case.
17 Step4:If a line is clipped case, find an
18 intersection with boundaries of the window
19           $m = (y_2 - y_1) / (x_2 - x_1)$ 
20 (a) If bit 1 is "1" line intersects with left
21 boundary of rectangle window
22           $y_3 = y_1 + m(x - X_1)$ 
23          where  $X = X_{wmin}$ 
24          where  $X_{wmin}$  is the minimum
25          value of X co-ordinate of window
26 (b) If bit 2 is "1" line intersect with right
27 boundary
28           $y_3 = y_1 + m(X - X_1)$ 
29          where  $X = X_{wmax}$ 
30          where  $X_{wmax}$  is maximum value of X
31          co-ordinate of the window
32 (c) If bit 3 is "1" line intersects with bottom
33 boundary
34           $X_3 = X_1 + (y - y_1) / m$ 
35          where  $y = y_{wmin}$ 
36           $y_{wmin}$  is the minimum value of Y
37          co-ordinate of the window
38 (d) If bit 4 is "1" line intersects with the top
39 boundary
40           $X_3 = X_1 + (y - y_1) / m$ 
41          where  $y = y_{wmax}$ 
42           $y_{wmax}$  is the maximum value of Y
43          co-ordinate of the window

```