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Sub \Rightarrow Computer graphics and animation

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Qns 3 \Rightarrow algorithm for boundary fill algorithm using 8 connected approach.

1 \Rightarrow Start

floodfill (x, y , old, newcol)

2 \Rightarrow If x or y is outside the screen, then return 0.

3 \Rightarrow If color of pixel (x, y) is same as old color, then ~~for top~~.

4 \Rightarrow Recur for,

floodfill (x, y , old, newcol)

floodfill ($x+1, y$, old, newcol)

floodfill ($x-1, y$, old, newcol)

floodfill ($x, y-1$, old, newcol)

floodfill ($x+1, y+1$, old, newcol)

floodfill ($x-1, y+1$, old, newcol);

floodfill ($x+1, y-1$, old, newcol);

floodfill ($x-1, y-1$, old, newcol)

5 \Rightarrow Stop

Code

```
#include <stdio.h>
#include <graph/cx.h>
#include <conio.h>

void floodfill (int x, int y, int old, int newcol)
{
    int current;
    current = getpixel (x, y);
    if (current == old)
    {
        delay (5);
        putpixel (x, y, newcol);
        floodfill (x+1, y, old, newcol);
        floodfill (x-1, y, old, newcol);
        floodfill (x, y+1, old, newcol);
        floodfill (x, y-1, old, newcol);
        floodfill (x+1, y+1, old, newcol);
        floodfill (x-1, y+1, old, newcol);
        floodfill (x+1, y-1, old, newcol);
        floodfill (x-1, y-1, old, newcol);
    }
}

void main()
{
    int gd = DETECT, gm;
    initgraph (&gd, &gm, " ");
    rectangle (50, 50, 150, 150);
    floodfill (70, 70, 0, 15);
    getch();
    closegraph();
}
```

