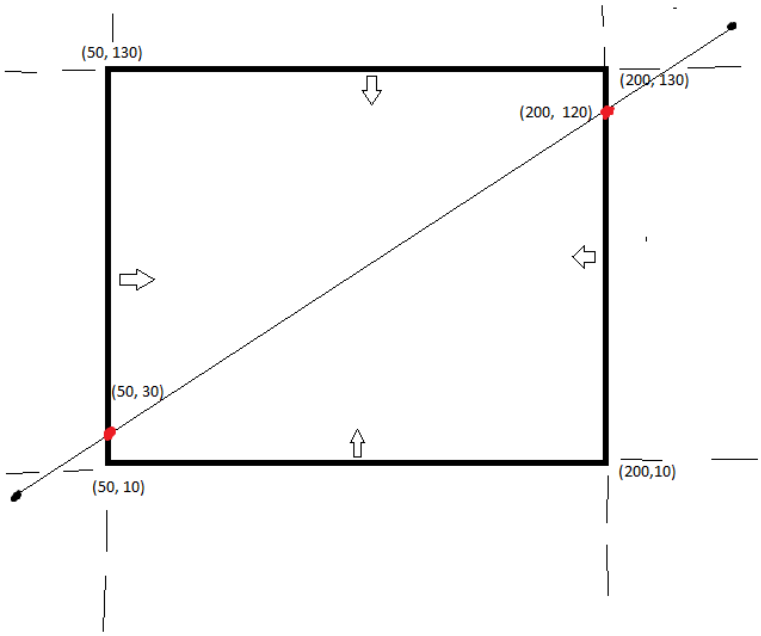
A.)



Y = 3/5 x + b

b = 0

Y = 3/5 X

P(0) = (50,30)
P(1) = (200,130)

B.) b.)

A's Region Code = 0010

B's Region Code = 0101

C's Region Code = 1000

c.)

Pair A.) The line is never visible so we cannot specify anything about the points

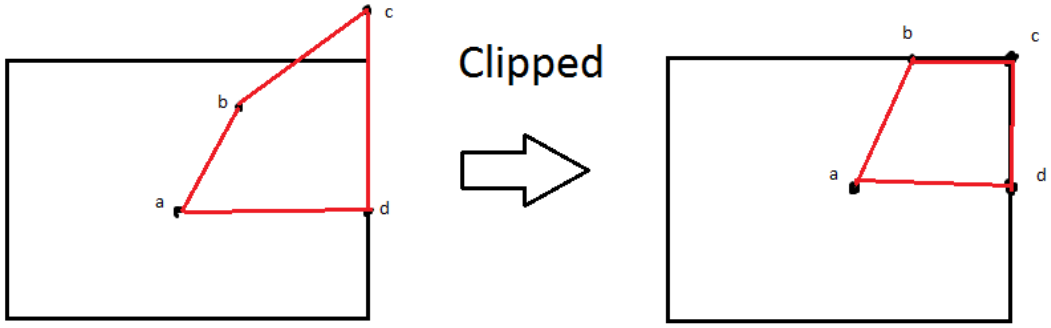
Pair B.) The line is partially visible

Pair C.) The line is completely visible

Pair D.) The line is not visible so we cannot specify anything about the points

Pair E.) The line is partially visible

C.)



Slope from A-> C = 1

50 = 1(100) + b b = -50

P(B) = 130 = 1(x) – 50

X = 180

So,

Points (Answer)

A = (100,50)

B = (180, 130)

C = (250, 130)

D = (250, 50)

D.)

a.) $x(t) = (1-t)A + t(B)$ where $0 <= t <= 1$

b.) R = ColorMap[minX][minY].(0)

B = ColorMap[minX][minY].(1)

G = ColorMap[minX][minY].(2)

```
For(minx to maxX):
    For(minY to maxY):
        ColorMap[minx][minY].(0) = x(R)
        ColorMap[minx][minY].(1) = x(B)
        ColorMap[minx][minY].(2) = x(G)
Return ColorMap.Display()
```

E.)

a.)

My Assumption would be 2. Because since it is a single segment there are only 2 points therefor only 2 constants are needed

b.) It would be the 2nd derivative. Because it always matches at junctions and the middle vertex would be a junction of two splines