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Kelas : D4 Manajemen Informatika 2019 A

1) P = (1,1), Akhir Q = (10,10) xmin, ymin, xmax, ymax = 1, 1, 7, 7
   Garis P (1,1)
   L = Karena x < xmin atau 1 = 1 = 0
   R = Karena x < xmax atau 1 < 7 = 0
   B = Karena y < ymin atau 1 = 1 = 0
   T = Karena y < ymax atau 1 < 7 = 0
   (0000)

   Garis Q (10,10)
   L = Karena x < xmin atau 10 > 1 = 0
   R = Karena x < xmax atau 10 > 7 = 1
   B = Karena y < ymin atau 10 > 1 = 0
   T = Karena y < ymax atau 10 > 7 = 1
   (0101)
   Jadi karena region kode curva ujung garis pada (0000), maka perlu dipotong

   Penentuan titik potong
   M = $\frac{y2-y1}{x2-x1}$ P = (1,1) Q = (10,10)

   = $\frac{10-1}{10-1}$ = 1 P = (1,1) adalah 0000

   = 1 + 1 x (0 – 1)
   Yp1 = 0 (titik potong)
   Xp1 = $x_1 + \frac{ymin-y1}{M} = 1 + \frac{1-1}{1} = 1$

   Titik potong adalah (1,1)

   Region code Q (10,10) 1010
   $yp2 = y_1 + M \times (xmax - x_1) = 10 + 1 (7 - 10) = 7$
   titik potong (7,7)
   $xp2 = x_1 + \frac{ymax - y1}{M} = 10 + \frac{7-10}{1} = 7$

   titik potong nya adalah (7, 7)
   titik potong garis yaitu (1,0), (1,1), (7,7), (7,7)
   viewport (1,1) dan (7,7)

2) P (1,1) Q (10,10)
   X1 = 1 , xr = 7, yb = 1 dan yt = 7
   dx = x2 – x1
   = 10 – 1 = 9

P1 = -dx
= -9
P_2 = dx
= 9
P_3 = -dy
= -9
P_4 = dy
= 9

dy = y2 – y1
= 10 – 1 = 9
Q_1 = x1 – x2
= 1 – 1 = 0
Q_2 = XR –X_1
= 7 – 1
= 6
Q_3 = y_1 – yB
= 1 – 1 = 0
Q_4 = yT – y1
= 7 – 1 = 6

➔ Q1 / p1 = 0/-9
➔ Q2 / p2 = 6/9
= 2/3
➔ Q3 / p3 = 0/-9
=0
➔ Q4 / p4 = 6/9
= 2/3

Untuk (pi < 0)T_1 = (0,0,0) = 0
Untuk (pi < 0)T_2 = (2/3, 2/3, 2/3,) = 2/3
$T_1 < T_2$

T_1 = 0
X_1 = x1 + dx x t1
= 1 + 9 x 0
= 1 + 0
X_1 = 1
Y_1 = y1 + dy x t_1
= 1 + 9 x 0
= 1
➔ (x_1, y_1) = (1,1)
T_2 = $\frac{2}{3}$
X_2 = x_1 + dx x t_2

$= 1 + 3 \times \frac{2}{3}$

$= 1 + 6$

$X_2 = 7$

$Y_2 = y_1 + dy \times t_2$

$= 1 + 9 \times \frac{2}{3}$

$Y_2 = 7$

$(x_2, y_2) = (7,7)$