

$$\therefore x = x_0 + \frac{y - y_0}{y_1 - y_0} (x_1 - x_0)$$

$$= 75 + \frac{120 - 125}{55 - 125} (65 - 75)$$

$$= 75 - 0.714 = 74.3$$

\therefore New Code (P_1) point is (74.3, 120)

Now Code (P_2) = 0100

$\Rightarrow \therefore$ Bit 2 = 1

\therefore So the line is intersect with Y_{min}

$$\therefore y = Y_{min} = 60$$

$$\therefore x = x_0 + \frac{y - y_0}{y_1 - y_0} (x_1 - x_0)$$

$$= 75 + \frac{60 - 125}{55 - 125} (65 - 75)$$

$$= 75 - 10.888 = 64.2$$

\therefore New Code (P_2) point is (64.2, 60)

\rightarrow New Code (P_1) = 0010

\rightarrow New Code (P_2) = 0000

\rightarrow First test:

$$\text{Code } (P_1) \mid \text{Code } (P_2) = 0010$$

\rightarrow no conclusion

\rightarrow Second test:

$$\text{Code } (P_1) \& \text{Code } (P_2) = 0000$$

\rightarrow intersect

\rightarrow replace P_1, P_2 with new points.

Here, Code (P_1) = 0010

\therefore Bit 3 = 1

\therefore So the line is intersect with x_{max}

$$\therefore x = x_{max} = 70$$