

PENGANTAR MTK BISNIS

Bab 7  
Jum'at, 23 Des 2022

Nama : Nenci Septiaeni

Npm : 2212120060

Kelas : IAK-PA

13.  $y = x^2 - 3x + 2$

a.) arah parabola

$a > 0$  (U)

b.) Diskriminan

$D = b^2 - 4ac$

$= (-3)^2 - 4(1)(2)$

$= 9 - 8 = 1$

$D > 0$  terbuka ke atas dan memotong sumbu x di dua titik yg berlainan

c.) titik puncak

$$\left\{ \frac{-b}{2a}, \frac{-D}{4a} \right\} = \left\{ \frac{3}{2 \cdot (1)}, \frac{-1}{4(1)} \right\}$$

$$= (1,5, -0,25)$$

0.)  $x_{1,2} = \frac{3 \pm \sqrt{9-8}}{2(1)} = \frac{3 \pm \sqrt{1}}{2}$

$x_1 = \frac{3 + 1}{2} = 2$

$x_2 = \frac{3 - 1}{2} = 1$

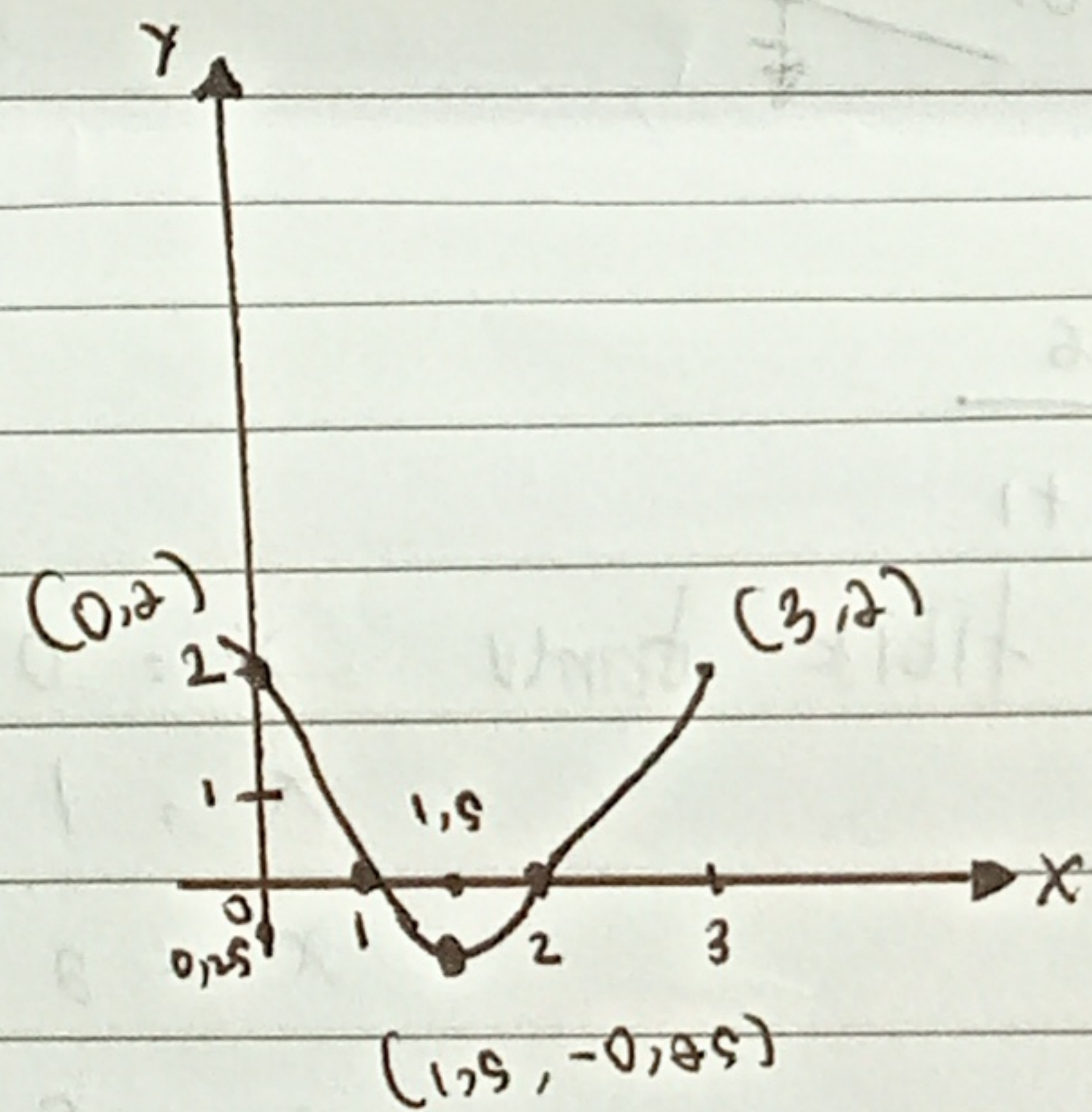
$y = x^2 - 3x + 2$

$x = 0 \rightarrow y = 2 \quad (0, 2)$

$x = 1 \rightarrow y = 1^2 - 3(1) + 2 = 0 \quad (1, 0)$

$x = 2 \rightarrow y = 2^2 - 3(2) + 2 = 0 \quad (2, 0)$

$x = 3 \rightarrow y = 3^2 - 3(3) + 2 = 2 \quad (3, 2)$



48.  $x = 96 - 4y - 2y^2$

a.) arah parabola

$a < 0$  (∩)

b.) Diskriminan

$D = b^2 - 4ac$

$= (-4)^2 - 4 \cdot (-2) (96)$

$= 16 + 768 = 784$

$D > 0$  terbuka ke kiri dan memotong sumbu y di dua titik

c.) titik puncak

$$\left\{ \begin{array}{l} -D \\ 4a \end{array} , \begin{array}{l} -b \\ 2a \end{array} \right\} = \left\{ \begin{array}{l} -784 \\ 4(-2) \end{array} , \begin{array}{l} 4 \\ 2(-2) \end{array} \right\}$$

$$= (98, -1)$$

$$x = 96 - 4y - 2y^2$$

$$y = 0 \rightarrow x = 96 \rightarrow (96, 0)$$

$$y = -2 \rightarrow x = 96 - 4(-2) - 2(-2)^2 = 96(9, 2)$$

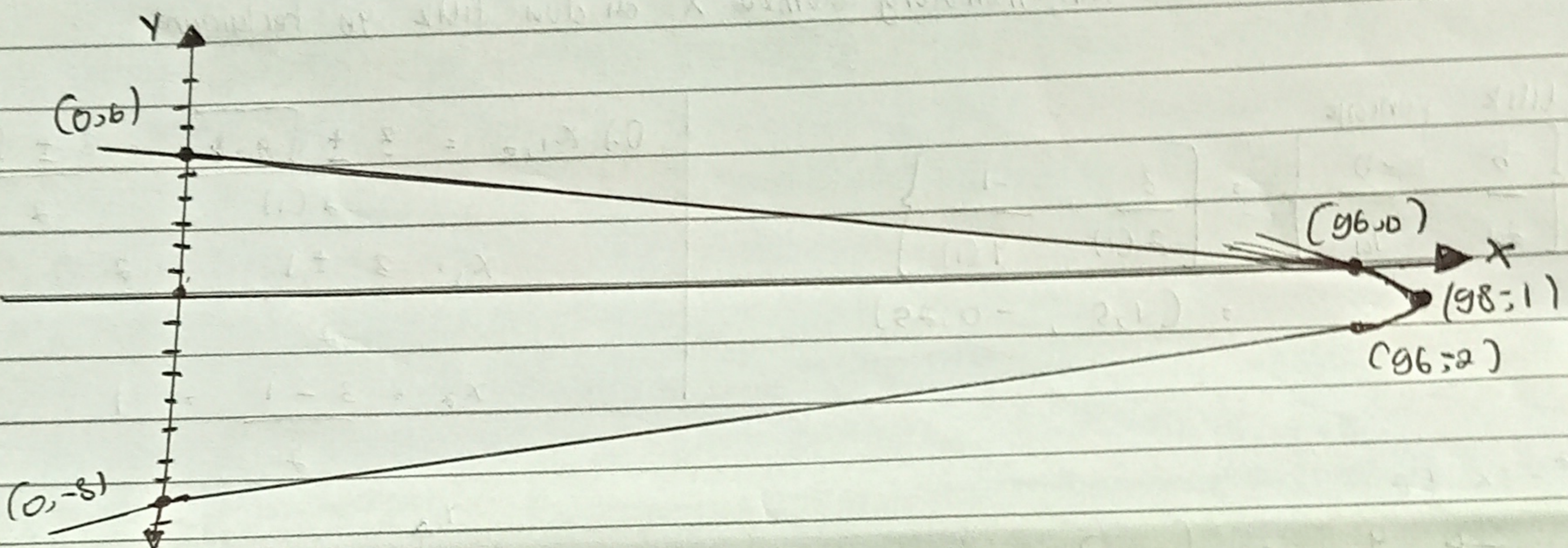
$$y = 6 \rightarrow x = 96 - 4(6) - 2(6)^2 = 0(0, 6)$$

$$y = -8 \rightarrow x = 96 - 4(-8) - 2(-8)^2 = 0(0, 8)$$

d.)  $y_{1,2} = \frac{4 \pm \sqrt{784}}{2(-2)}$

$$y_1 = \frac{4 + 28}{-4} = -8$$

$$y_2 = \frac{4 - 28}{-4} = 6$$



bg.  $y = \frac{6}{x+1}$

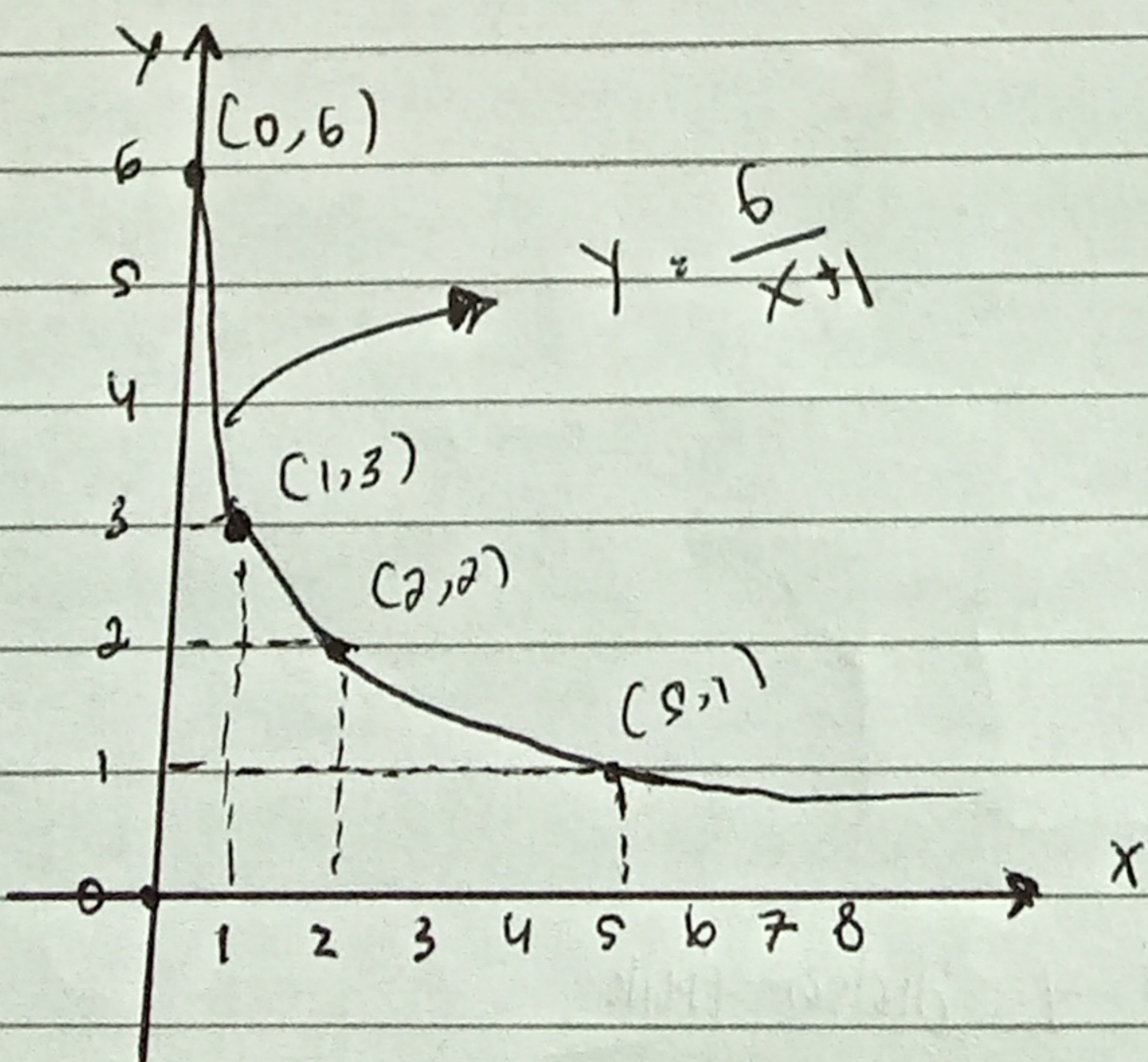
Jawab. titik bantu  $x = 0 \rightarrow y = \frac{6}{0+1} = \frac{6}{1} = 6 \rightarrow (0, 6)$

$x = 1 \rightarrow y = \frac{6}{1+1} = \frac{6}{2} = 3 \rightarrow (1, 3)$

$x = 2 \rightarrow y = \frac{6}{2+1} = \frac{6}{3} = 2 \rightarrow (2, 2)$

$x = 5 \rightarrow y = \frac{6}{5+1} = \frac{6}{6} = 1 \rightarrow (5, 1)$

Grafik



$$79. (x-3)(y+b) = 90$$

Jawab:

$$x = h = 3$$

titik pusat  $(3, -b)$

$$y = k = -b$$

$$\text{titik bantu } x = 0 \rightarrow (0, 3)(y+b) = 90$$

$$-3y - 18 = 90$$

$$-3y = 108$$

$$y = -36 \quad (0, -36)$$

$$y = 0 \quad (x-3)(0+b) = 90$$

$$6x - 18 = 90$$

$$6x = 108$$

$$x = \frac{108}{6} = 18 \quad (18, 0)$$