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13) Untuk masing-masing fungsi kuadrat $y = x^2 - 3x + 2$

$a = 1 \rightarrow a > 0$ terbuka keatas U

$$D = b^2 - 4ac = (-3)^2 - 4 \cdot 1 \cdot 2 = 9 - 8 = 1$$

$$\Rightarrow y = 0$$

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

$$0 = x^2 - 3x + 2$$

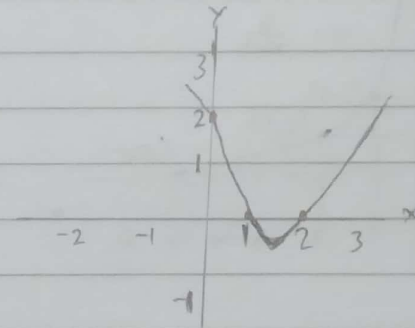
$$= (x-2)(x-1)$$

$$x = 2 \cdot x = 1$$

$$(1, 0) (2, 0)$$

$$\Rightarrow x = 0$$

$$y = 0^2 - 3 \cdot 0 + 2 = 2 \Rightarrow (0, 2)$$



$$\text{Titik puncak} = \left(\frac{-b}{2a}, \frac{-D}{4a} \right)$$

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

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

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

48). fungsi kuadrat yang berbentuk $x = f(x)$

$$x = 96 - 4y - 2y^2 \quad a = -2y^2 \quad b = -4y \quad c = 96$$

$$y = 0 \quad (96, 0)$$

$$x = 96 - 4(0) - 2(0)^2$$

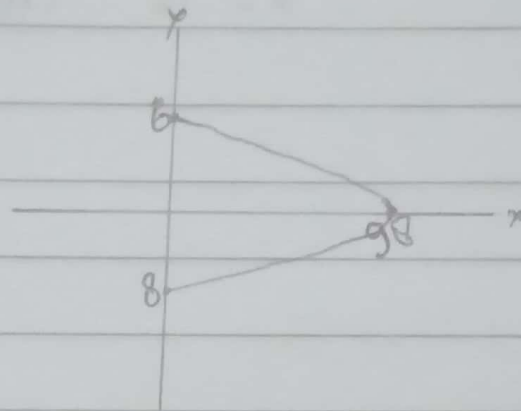
$$x_p = \frac{-4y - y(-2)(96)}{-4(-2)}$$

$$x_p = \frac{16 + 768}{8}$$

$$x_p = \frac{784}{8} = 98$$

$$y_p = \frac{-(-4)}{2(-2)} = \frac{4}{4} = 1$$

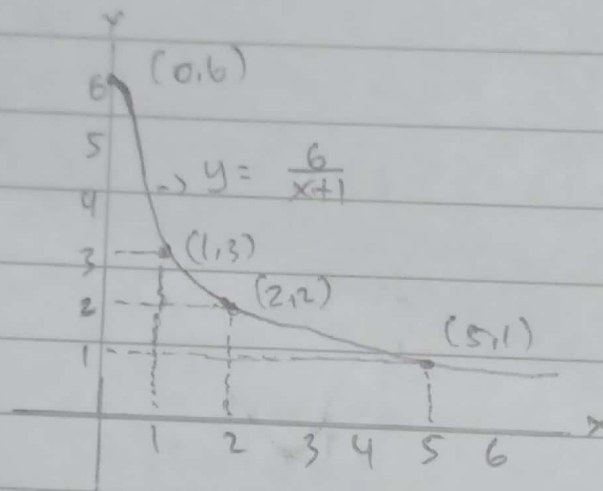
$a < 0$ \hookrightarrow titik puncak



$$69). y = \frac{6}{x+1}$$

Titik bantu : $x = 0 \rightarrow y = \frac{6}{0+1} = 6 \quad (0,6)$
 $x = 1 \rightarrow y = \frac{6}{1+1} = 3 \quad (1,3)$
 $x = 2 \rightarrow y = \frac{6}{2+1} = 2 \quad (2,2)$
 $x = 5 \rightarrow y = \frac{6}{5+1} = 1 \quad (5,1)$

Grafik



$$79). (x-3)(y-6) = 90$$

$$x = h = 3$$

$$y = k = -6$$

Titik pusat $(3, -6)$

titik bantu $x = 0 \rightarrow (0,3)(y+6) = 90$

$$-3y - 18 = 90$$

$$3y = 108$$

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

$y = 0 \rightarrow (x-3)(0+6) = 90$

$$6x - 18 = 90$$

$$6x = 108$$

$$x = 18 \quad (18, 0)$$