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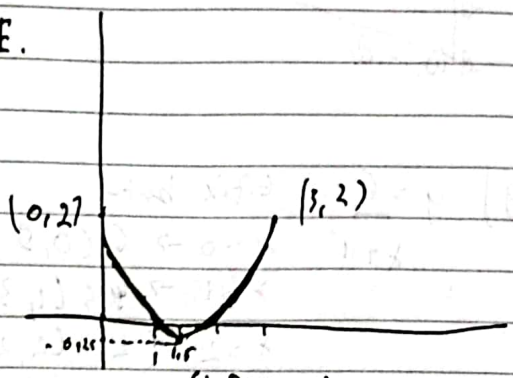
19 $y = x^2 - 3x + 2$

a. menentukan arah parabola
$a = 1 \quad D = 1$
$a > 0$ ; $D > 0$
kurva menghadap ke atas
memotong 2 titik di garis x

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

c. titik puncak
$\left[\frac{-b}{2a}, \frac{-D}{4a}\right] = \frac{3}{2.1}, \frac{-1}{4.1}$
$= 1{,}5 ; -0{,}25$

E.




d. $x_{1,2} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

$x_1 = \frac{3 + \sqrt{1}}{2.1} = 2$

$x_2 = \frac{3 - \sqrt{1}}{2.1} = 1$

titik potong
(2,0) ; (1,0)

| Titik bantu |
|---|
| $x = 9$ |
| $9^2 - 3(9) + 2 = 6$ |
| $x = -1$ |
| $-1^2 - 3(-1) + 2 = 6$ |

(9,6) ; (-1,6)

20)

98. $x = 96 - 9y - 2y^2$

a. grafik parabola
$a < 0$

b. Diskriminan
$D = b^2 - 4ac$
$= (-9)^2 - 4(-2)(96)$
$= 16 + 768 = 784$

c. titik puncak
$\left\{\frac{-D}{4a}, \frac{-b}{2a}\right\} = \left\{\frac{-784}{4(-2)}, \frac{9}{2(-2)}\right\} = \{98, -1\}$

d $y_{1,2} = \frac{9 \pm \sqrt{784}}{2(-2)}$

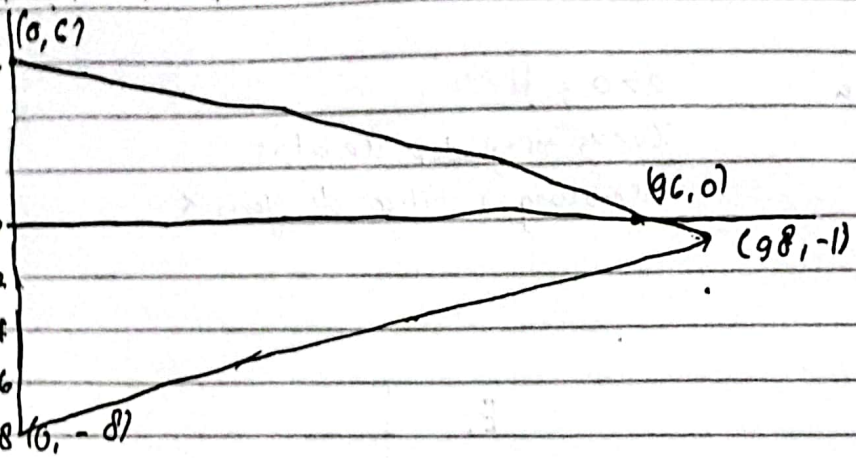
$y_1 = \frac{9 + 28}{-4} = -8$

$y_2 = \frac{9 - 28}{-4} = 6$

B.
$D > 0$ terbuka kekiri memotong 2 titik

$x = 96 - 9y - 2y^2$
$y = 0 \Rightarrow x = (96, 0)$
$y = -2 \rightarrow x = 96 - 9(-2) - 2(-2)^2 = (98, 2)$
$y = 6 \rightarrow x = 96 - 9(6) - 2(6)^2 = 0 \quad (0, 6)$
$y = -8 \rightarrow x = 96 - 9(8) - 2(8)^2 = 0 \quad (0, -8)$

E



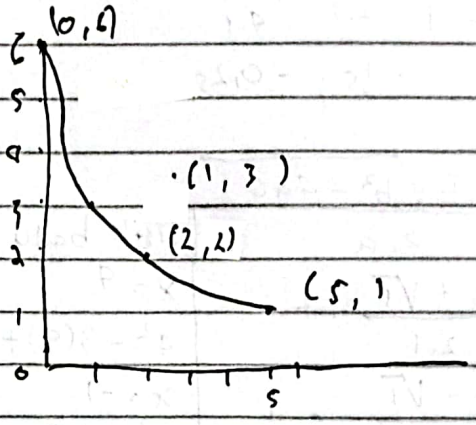

69) $y = \frac{6}{x+1}$ titik bantu

$x = 0 \rightarrow C(0,6)$

$x = 1 \rightarrow y = 3 \; (1,3)$

$x = 2 \rightarrow 2 \; (2,2)$

$x = 5 \rightarrow y = 1 \; (5,1)$




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

$x = h = 3$

$y = k = -6$

$tp = (3,-6)$

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

$-3y - 18 = 90$

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

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

$6x - 18 = 90$

$x = 18$