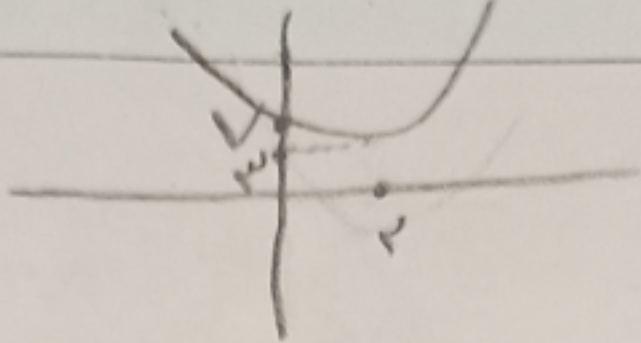
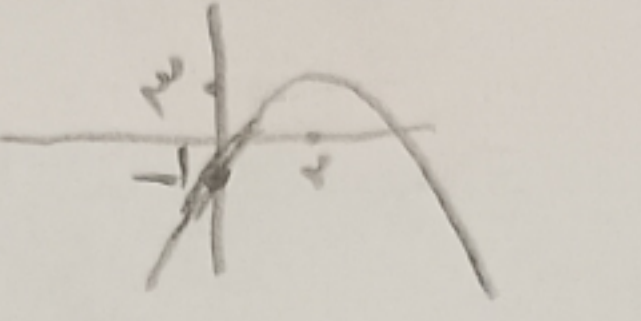


الف) $y = x^2 - 6x + 7$

ب) $y = -x^2 + 6x - 1$

1

$m > 5 \vee m < -2$

الف) $m^2 + 6m + 1 - 7(4)(\frac{1}{4}m + 2) = m^2 + 6m + 1 - 7m - 14 = -m^2 - m - 13 < 0$

ب) $m^2 + 6m + 1 - 1(\frac{1}{4}m + 2) = m^2 + 6m + 1 - \frac{1}{4}m - 2 = m^2 + \frac{23}{4}m - 1 > 0$

2

$-2 < m < 5$

$m > 5 \vee m < -2$

2

الف) $P < 0$ و $K < 0$ $\Rightarrow \frac{10}{m-1} < 0 \Rightarrow m < 1$

ب) $P < 0$ و $K < 0$ $\Rightarrow \frac{10}{m-1} < 0 \Rightarrow m < 1$

3

$-1 < m < 2$

3

الف) $P < 0$ و $K < 0$ $\Rightarrow \frac{10}{m-1} < 0 \Rightarrow m < 1$

ب) $P < 0$ و $K < 0$ $\Rightarrow \frac{10}{m-1} < 0 \Rightarrow m < 1$

4

$-1 < m < 2$

4

الف) $\sin \alpha \in [\frac{1}{2}, \frac{3}{4}]$

ب) $\sin \alpha \in [\frac{1}{2}, \frac{3}{4}]$

5

$\sin \alpha = \pm 1$

5

$$y = \frac{(x^2 - x - 1)(x^2 - x - 2)}{1 - x^2} = \frac{(x-1)(x+1)(x-2)(x+1)}{1-x^2} = -(x+1)(x-2)$$

$$\Rightarrow -x^2 + 1x + 2 \Rightarrow \frac{d}{dx} = \frac{-2x}{-2} = \frac{2x}{2}$$

6

$$\begin{aligned} \psi S &= R\Delta P + V \\ S &= \frac{m+1}{m} \left\{ \begin{aligned} \frac{m+1}{m} &= \frac{-10}{m} + V \\ \frac{m+1}{m} &= \frac{-10 + Vm}{m} \end{aligned} \right. \\ P &= \frac{-1}{m} \\ \frac{-1}{m} &= \frac{-1}{m} \end{aligned}$$

7

$$\begin{aligned} a+B &= \Delta \\ a \cdot B &= 1 \\ \frac{a+B}{\Delta B^2} &= \frac{1}{\Delta} B^2 + \frac{a}{\Delta B^2} = \frac{1}{\Delta} B^2 + \frac{1}{\Delta} a = \frac{1}{\Delta} (B^2 + a) \end{aligned}$$

8

$$\Rightarrow \frac{1}{\Delta} ((a+B)^2 - 2aB(a+B)) = \frac{9\Delta}{\Delta} = 19$$

$$\begin{aligned} (x^2) \quad ax^2 + bx + c &= (m+10)x^2 \\ \frac{1}{x} &\Rightarrow 9a - 10b + c = 0 \\ \begin{cases} a \geq 1 \\ b \geq 1 \end{cases} \end{aligned}$$

$$\Rightarrow x^2 + 1x + 1 = 0 \Rightarrow \frac{d}{dx} = \frac{-1}{2x} = \frac{-1}{2}$$

9

$$\begin{aligned} y &= x \\ y &= (x^2 + (m+1)x + m) \\ \rightarrow m^2 - 1 &= (m+1)(m-1) \end{aligned}$$

10