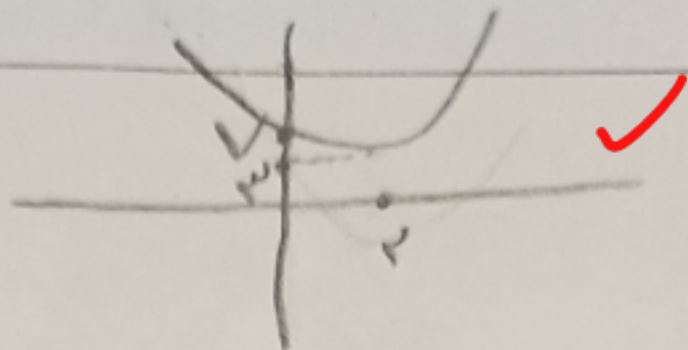


۱۹, ۵

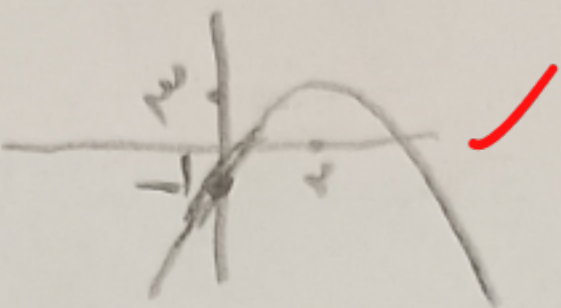
نام و نام خانوادگی محمد حسینی پاسخنامه تشریحی تکلیف شماره ۱۲ کلاس V/B

الف) $y = x^2 - 6x + 7$



(۲)

ب) $y = -x^2 + 6x - 1$



$m > 5 \vee m < -2$

الف) $m^2 + 6m + 1 - 7(4) + (\frac{1}{2}m + 2) = m^2 + 6m + 1 - 28 + \frac{1}{2}m + 2 = m^2 + \frac{13}{2}m - 25 = 0$

ب) $m^2 + 6m + 1 - 7(4) + (\frac{1}{2}m + 2) = m^2 + 6m + 1 - 28 + \frac{1}{2}m + 2 = m^2 + \frac{13}{2}m - 25 = 0 \rightarrow m \geq 5$

$\frac{m}{2} + \frac{5}{2} = 0$

$-2 < m < 5$

$m > 5 \vee m < -2$

الف) $P < 0$ و $K < 0$ $\Rightarrow m < -2$ $\vee m > 5$ $\Rightarrow m^2 + 6m + 1 - 7(4) + (\frac{1}{2}m + 2) = m^2 + \frac{13}{2}m - 25 = 0$ $\Rightarrow m \geq 5$ $\Rightarrow m^2 + 6m + 1 - 7(4) + (\frac{1}{2}m + 2) = m^2 + \frac{13}{2}m - 25 = 0$ $\Rightarrow m \geq 5$ $\Rightarrow m^2 + 6m + 1 - 7(4) + (\frac{1}{2}m + 2) = m^2 + \frac{13}{2}m - 25 = 0$ $\Rightarrow m \geq 5$

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لازم نیست α رو جدا ببری
لنہ!

$\Delta = 4 \sin^2 \alpha - 4 \times \frac{1}{4} \times \frac{1}{4} = 4 \sin^2 \alpha - 1$
 $\Delta \geq 0 \Rightarrow 4 \sin^2 \alpha - 1 \geq 0 \Rightarrow \sin^2 \alpha \geq \frac{1}{4} \Rightarrow \sin \alpha \geq \frac{1}{2} \vee \sin \alpha \leq -\frac{1}{2}$
 $\sin \alpha \geq \frac{1}{2} \Rightarrow \frac{\pi}{6} \leq \alpha \leq \frac{5\pi}{6}$
 $\sin \alpha \leq -\frac{1}{2} \Rightarrow \frac{7\pi}{6} \leq \alpha \leq \frac{11\pi}{6}$
 $\sin \alpha = \pm 1 \Rightarrow \alpha = \frac{\pi}{2} \vee \frac{3\pi}{2}$

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

(2)

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

6

$$\begin{aligned} \psi S &= R \Delta P + V \\ S &= \frac{m \psi^2}{m} \quad \left\{ \begin{aligned} \frac{m \psi^2}{m} &= \frac{-10}{m} + V \\ \frac{m \psi^2}{m} &= \frac{-10 + V m}{m} \end{aligned} \right. \\ \psi &= \frac{-1}{m} \\ \frac{-1}{m} &= \frac{-1}{m} \quad \left(\psi = \frac{-1}{m} \rightarrow m = \frac{-1}{\psi} \right) \quad \checkmark \end{aligned}$$

(2)

7

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

(2)

8

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

$$\begin{aligned} (2) \quad ax^2 + bx + c &= mx + 10 \rightarrow ax^2 + (b-10)x + c = 0 \\ \Delta &= 0 \rightarrow 9a - 10b + c = 0 \\ \left\{ \begin{aligned} a &= 1 \\ b &= 9 \end{aligned} \right. \quad \checkmark \end{aligned}$$

(2)

9

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

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

(1, 1)

10

نصیب ہے $\times$
 $m \geq 1$
 $m \geq -1$ $\checkmark$