Date: $\frac{x^{1}}{}$ ۱۴۰۳ / ۵ / ۲۴

۱۲٫۲۵

کلاس سبزعلی

Subject: -1

الف) $y=2x^2-4x+1 \quad x=\frac{-b}{2a}=\frac{4}{4}=\boxed{1} \quad y=\boxed{2-4+1 \ min}$

۱ ص

ب) $-2x^2+3x-5 \rightarrow \frac{-3}{-4}=\frac{3}{4}$ ۴ ۱ $\boxed{max}$

$-2\left(\frac{3}{4}\right)^2+3\left(\frac{3}{4}\right)-5=$

$-\frac{9}{8}+\frac{9\times 2}{4\times 2}-\frac{5\times 8}{1\times 8}=-\frac{9}{8}+\frac{18}{8}-\frac{40}{8}=-\frac{49}{8}+\frac{18}{8}=\boxed{-\frac{31}{8}}\,y$

$-2\left(\frac{3}{4}\right)^2+3\left(\frac{3}{4}\right)-5=0$

$y=x^2-6x+1$

$\frac{6}{2}=\boxed{3}\rightarrow x$

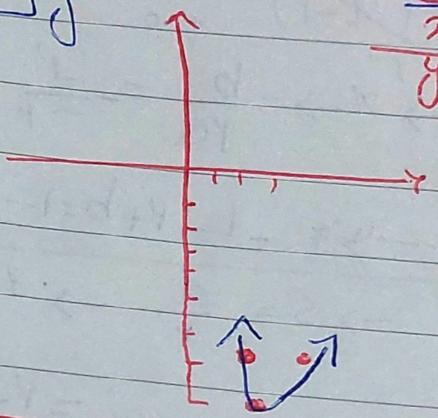
$9-18+1=\boxed{-8}\,y$

$4-12+1$

$\boxed{min}$

x	2	3	4
y	-7	-8	-7

2 ص



$y=-x^2+4x+1$

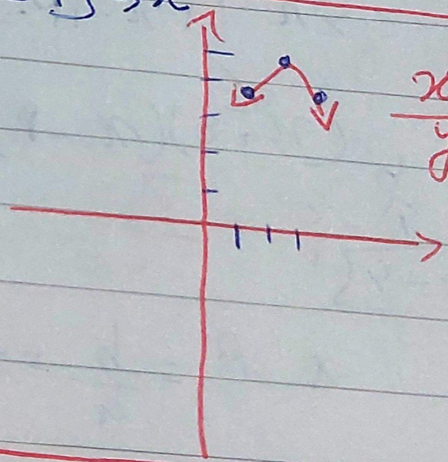
$\frac{-4}{-2}=\boxed{2}\rightarrow x$

$-4+8+1=\boxed{5}\,y$

$-1+4+1=\boxed{4}$

$\boxed{max}$

x	1	2	3
y	4	5	4



$y=ax^2+3x+a \rightarrow \frac{-3}{2a}\rightarrow x$

$x^2-(a+1)x+a=0$ ۷

$n,\ n+2 \quad (\text{n فرد}) \quad n+(n+2)=2n+2=a+1\rightarrow a=2n+1$

$n(n+2)=a \quad n(n+2)=2n+1,\ a=2(1)+1=3 \quad a=3$ ص

منفی $a=3$

$x^2-10x+b=0$ جایدار عدد فرض

$b=4\times 6=24$

$24-3=\boxed{21}$

Subject: Date:

$$-\frac{b}{2a} = -\frac{3}{2a} \to y = a - \frac{9}{4a} \to a - \frac{9}{4a} = \frac{7}{8}$$

$$8a^2 - 18 = 7a \quad 8a^2 - 7a - 18 = 0 \quad (8a+9)(a-2) = 0$$

۲

$$\boxed{a = 2} \text{ یا } a = -\frac{9}{8}$$

$$x_1 = 1 \text{ و } x_2 = \frac{m}{2} \Rightarrow S = \frac{1}{2}|m|\left|1 - \frac{m}{2}\right| = \frac{3}{4} = |m(2-m)| = 3$$

۵

$$m = -1 \text{ یا } m = 3 \quad y = x^2 - mx + 1 \quad y = 1 - \frac{m^2}{4}$$

۱٫۵

$$m = 3 \quad y = -\frac{5}{4} \quad m = -1 \to y = \frac{3}{4}$$

$$\cancel{-\frac{5}{4} \text{ یا } \frac{3}{4}}$$

$$m \quad y = x^2 + x + 1 \to x_S = -\frac{1}{2}$$

$$y_S = \frac{3}{4}$$

۵ ۴

$$x^2 - 3mx + m = 0 \to x_1 + x_2 = 3m \qquad m = \frac{4 \pm \sqrt{16+36}}{18}$$

$$x_1x_2 = m \qquad \frac{4 \pm \sqrt{52}}{18} = \frac{4 \pm 2\sqrt{13}}{18}$$

$$|x_1 - x_2| = \sqrt{(x_1+x_2)^2 - 4x_1x_2} = \sqrt{9m^2 - 4m} \qquad \frac{2 \pm \sqrt{13}}{9}$$

$$\sqrt{9m^2 - 4m} = 1 \quad 9m^2 - 4m = 1 \to 9m^2 - 4m - 1 = 0$$

$$2x^2 - mx - m = 0 \quad x_1x_2 = \frac{c}{a} = \frac{-m}{2} = -\frac{m}{2}$$

$$x_1x_2 = -\frac{m}{2} = -\frac{1}{2} \times \frac{2 \pm \sqrt{13}}{9} = -\frac{1 \pm \frac{\sqrt{13}}{2}}{9} = \boxed{-\frac{2 \mp \sqrt{13}}{18}}$$

Date: Subject: هندسی سبزعلی

(۸) ۵۱۷۵

$y = -ax^2 + bx + 2 \qquad x = \frac{-b}{2a} = \frac{-a}{2(-a)} = \boxed{\frac{1}{2}}$

$y = -a\left(\frac{1}{2}\right)^2 + a\left(\frac{1}{2}\right) + 2 = \frac{-a}{4} + \frac{a}{2} + 2 = \frac{a}{4} + 2$

$\left(\frac{1}{2}, \frac{a}{4}+2\right) \Big\} \quad y = 4bx^2 - bx - 1 \qquad \frac{a}{4} + 2 = 4b\left(\frac{1}{2}\right)^2 - b\left(\frac{1}{2}\right) - 1$

$\frac{b}{2} - \frac{b}{2} = 0 \qquad \frac{-a}{16} + \frac{a}{4} + 2 = \frac{-b}{8} - 1$

$\frac{a}{4} + 2 = 4b\left(\frac{1}{4}\right) - \frac{b}{2} - 1 = \boxed{-1} \qquad \frac{a}{4} + 2 = -1$

$\frac{12}{16} = \frac{-b}{8} \to b = -6$

$\frac{a}{4} = -3 \to a = \boxed{-12} \qquad b - a = b - (-12) = b + 12 \qquad b - a = -6 - (-12)$

۶

$\boxed{b - a = b + 12}$

(۹) ۵

$x = \frac{-b}{2a} \Big\} \quad y = c - \frac{B^2}{4a}$

$A = 25\alpha \quad , B = 4 , C = \beta \qquad x = \frac{-4}{2 \times 25\alpha} = \frac{-2}{25a} \to y = \beta - \frac{16}{100\alpha}$

$\beta - \frac{4}{25\alpha} \qquad x = \frac{-2}{25\alpha}$

$a > 0 \Big\} \quad x < 0 \qquad \beta > \alpha > 0 \to \beta > 0$

$y = \beta - \frac{4}{25\alpha} > 0 \longrightarrow$ (۲) ناحیه

(۱۰) ۲

$a + b = s \qquad ab = p \qquad x^2 - (a + b^2 - 12)x + a + b - 1 = 0$

$-(a^2 + b^2 - 12) \Big\} \quad a + b = a^2 + b^2 - 12 \qquad a + b - 1 = ab$

$ab = a + b - 1 \Big\} \quad a^2 + b^2 = a + b + 12 \qquad a^2 + b^2 + 2ab = (a + b + 12) +$

$2(a + b - 1) = 3(a + b) + 10 \qquad s = a + b \qquad s^2 = 3s + 10$

$s^2 - 3s - 10 = 0 \qquad (s - 5)(s + 2) = 0 \qquad \boxed{s = 5}$

Subject:

Date: هستی سبزعلی

محاسبه

$$۴x^۳ + \boxed{kx^۲ - ۹x - ۲ = ۰} \to \frac{۹}{k} = \cancel{\alpha+\beta} \to \boxed{k=۹}$$

۳

۵

$$\frac{-۲}{k} = -۲ \to \boxed{k=۱}$$

α مشکل دارم

$$S = \alpha + \beta = \frac{-۴}{۲۵\alpha}$$

$$P = \alpha\beta = \frac{\beta}{۲۵\alpha} \to \alpha^۲ = \frac{۱}{۲۵} \to \alpha = \pm\frac{۱}{۵}$$

$$\alpha \to \begin{cases} \frac{۱}{۵} \to \frac{۱}{۵} + \beta = \frac{-۴}{۵} \to \beta = -۱ \quad \beta < \alpha \ \times \\ \frac{-۱}{۵} \to \frac{-۱}{۵} + \beta = \frac{۴}{۵} \to \beta = ۱ \to \beta > \alpha \end{cases}$$

$$\begin{cases} \alpha = \frac{-۱}{۵} \\ \beta = ۱ \end{cases}$$

$$y = -۵x^۲ + ۴x + ۱ \begin{cases} x_s = \frac{۲}{۵} \\ y_s = \frac{۹}{۵} \end{cases} \to$$

۱ [illegible]