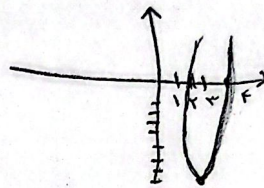


الف) ext | $x = \frac{-b}{2a} = \frac{4}{2} = 2$ $a > 0 \rightarrow \min$
 $y = 2(2)^2 - 4(2) + 1 = 2 - 4 + 1 = -1$

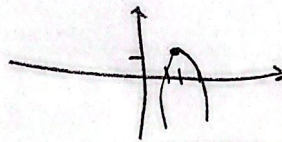
ب) ext | $x = \frac{-b}{2a} = \frac{-4}{-2} = 2$ $a < 0 \rightarrow \max$
 $y = -2\left(\frac{4}{-2}\right)^2 + 4\left(\frac{4}{-2}\right) - 5 = -\frac{9}{1} + \frac{9}{1} - 5 = -\frac{5}{1}$

الف) $x = \frac{-b}{2a} = \frac{1}{2} = 0.5$ $a > 0 \rightarrow \min$
 $y = 4x^2 - 1x + 1 = -0.25$



x	2	2	2
y	1	-1	1

ب) $x = \frac{b}{2a} = \frac{-4}{-2} = 2$ $a < 0 \rightarrow \max$
 $y = -4x^2 + 4x + 1 = 1$



x	1	2	2
y	1	1	1

$\alpha\beta = -2, \alpha + \beta = 1 \rightarrow x^2 - (\alpha + \beta)x + \alpha\beta = 0 \rightarrow x^2 - x - 2 = 0$

$kx^2 + kx^2 - 9x - 2$ | $x^2 - x - 2$
 $kx^2 - 2x^2 - 11x$ | $kx + k + 2$
 $(k + k)x^2 - 11x - 2$
 $(k + k)x^2 - (k + k)x - 2(k + k)$
 $(k + k)x + 2k + 2 \rightarrow 0 = \text{coefficient} \rightarrow k + 2 = 0 \rightarrow k = -2$

$\sqrt{\alpha} - \sqrt{\beta} = 1 \rightarrow \alpha + \beta - 2\sqrt{\alpha\beta} = 1 \rightarrow 3m - 2\sqrt{m} - 1 = 0 \rightarrow \sqrt{m} = t$

$\alpha + \beta = -\frac{b}{a} = \frac{3}{1} = 3$
 $\alpha\beta = \frac{c}{a} = \frac{-1}{1} = -1$

$3t^2 - 2t - 1 = 0 \rightarrow t^2 - 2t - 3 = 0 \rightarrow (t-3)(t+1) = 0$
 $= (t-1)(t+1) = 0 \rightarrow t = 1, t = -1$
 $1 = m, 1 = t \leftarrow \text{since } t = \sqrt{m} \leftarrow \text{only}$

$2x^2 - mx - m = 0 \rightarrow \frac{c}{a} = \frac{-m}{2} = \frac{-1}{2}$

یہ دراصل $[m]$ کے لیے $x=0 \rightarrow y=m \rightarrow (0)^2 - (m+2) \cdot 0 + m = y \rightarrow y=m$

مغز طوں تابع \leftarrow قطع کردن \leftarrow $2x^2 - (m+2)x + m = 0$ کے لیے α و β کے لیے

$|\alpha - \beta| = \frac{\sqrt{\Delta}}{|a|}$ ارتفاع مثلث $m =$ وقار \rightarrow

$\frac{1}{2} \times |\alpha - \beta| \times m = \frac{r}{2} \rightarrow |\alpha - \beta| \times m = \frac{r}{2} \rightarrow |\alpha - \beta| = \frac{r}{2m}$

$|\alpha - \beta| = \frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{(m+2)^2 - 4(2)(m)}}{2} = \frac{\sqrt{(m-2)^2}}{2} = \frac{|m-2|}{2} = \frac{r}{2m} \rightarrow |m-2| = \frac{r}{m}$

دست \rightarrow ① $\rightarrow m-2 = \frac{r}{m} \rightarrow m^2 - 2m - r = 0 \rightarrow (m-3)(m+1) = 0$ so $m=3, m=-1$

$y = x^2 - mx + 1$ تقاطعوں کے لیے $-\frac{b}{2a} = \frac{m}{2} \rightarrow -\frac{r}{2}, \frac{r}{2}$

① $\rightarrow r+m = \frac{r}{m} \rightarrow m^2 + 2m - r = 0 \rightarrow m^2 + 2m - 3 = 0 \rightarrow (m+3)(m-1) = 0 \rightarrow m = -3, m = 1$

$y = x^2 - mx + 1$ تقاطعوں کے لیے $-\frac{b}{2a} = \frac{m}{2} \rightarrow -\frac{r}{2}, \frac{r}{2}$

$\min = \frac{y}{x} \rightarrow a > 0$ $-\frac{\Delta}{4a} = \frac{y}{x} \rightarrow -\frac{(b^2 - 4a)}{4a} = -\frac{(9 - 4a^2)}{4a} = \frac{y}{x} = \frac{4a^2 - 9}{4a} = \frac{y}{x}$ ④

$4 \cdot 4a^2 - 4 \cdot 9 = 0 \rightarrow a^2 - 4a - 9 = 0 \rightarrow (a-2)(4a+4) = 0 \rightarrow a=2, a = -\frac{9}{4}$

وہ a یا a پر $2 = a$ ہے

$x^2 - (a+1)x + a = 0$ \rightarrow $-\frac{b}{2a} = a+1$ \rightarrow $n, n+2 \rightarrow 2n+2 = a+1$ \rightarrow $a = 2n+1$ ⑤

$n(n+2) = n^2 + 2n = a$

ہے $\rightarrow n^2 + 2n = 2n+1 \rightarrow n^2 = 1 \rightarrow n = 1$

$m, m+2 \rightarrow a=3 \rightarrow -\frac{b}{2a} = 1$

$m + m+2 = 2m+2 = 10 \rightarrow 2m = 8 \rightarrow m = 4$ ضرب $= 28$ \rightarrow $2 \cdot 4 = 8$

$28 - 3 = 25$ \rightarrow $2 \cdot 4 = 8$

راسی $= -\frac{b}{2a} \rightarrow -\frac{a}{-2a} = \frac{1}{2} \rightarrow y = \frac{a}{2} + 2$ ⑥

باید $\rightarrow (\frac{1}{2}, \frac{a}{2} + 2) \rightarrow \frac{b}{2} - \frac{b}{2} - 1 = \frac{a}{2} + 2 \rightarrow a = -12$

راس $= -\frac{b}{2a} = \frac{1}{2} \rightarrow y = -\frac{b}{a} - 1 \rightarrow (\frac{1}{2}, -\frac{b}{a} - 1) \rightarrow -\frac{b}{a} - 1 = \frac{-12}{14} + 2 \rightarrow -\frac{b-1}{a} = \frac{16}{14}$

$-2b - 14 = 16 \rightarrow -2b = 30 \rightarrow b = -15$

$b - a = -15 - (-12) = -3$

$$x + B = \frac{c}{a} = \frac{B}{2a} \rightarrow x = \frac{-B}{2a} \rightarrow x = \frac{-1}{2}$$

$$x + B = \frac{-b}{a} = \frac{-1}{2} \rightarrow x = \frac{-1}{2} - B$$

محل کتب با این فرمول از $x = \frac{-b}{2a}$ می شود

$$x = \frac{-1}{2}, B = 1$$

نصف اول

$$a + b = \text{جمع ریشه ها} = a^r + b^r - 1r = a^r b^r + 1 - 1r = a^r b^r - 11$$

(10)

$$(a + b - 1 = ab)^r \rightarrow (a + b = ab + 1)^r$$

~~scribbles~~

$a^r b^r$

$$s^r - 1r = s$$

$$s^r - s - 1r = 0$$

$$(s - r)(s + r) = 0$$

$$s = r \quad s = -r \rightarrow \text{مطلوب} \rightarrow s = r$$

$$a^r + b^r + r ab = a^r b^r + 1 + r ab$$

$$P = s^r - 11$$

$$P = 11 \quad \leftarrow P = 19 - 11$$

\leftarrow