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الف) $y = 2x^2 - 4x + 1 \Rightarrow \min$

ext: $\begin{cases} 1 \\ -1 \end{cases}$

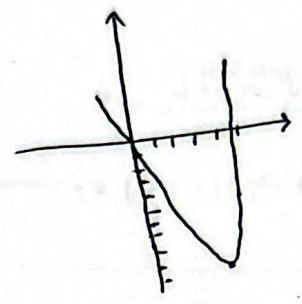
ب) $y = -2x^2 + 3x - 2 \Rightarrow \max$

ext: $\begin{cases} \frac{3}{4} \\ -\frac{5}{4} \end{cases}$

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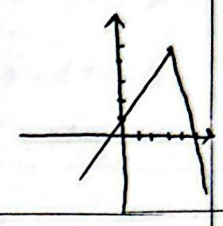
الف) $y = x^2 - 4x + 1$

ext: $\begin{cases} 2 \\ -1 \end{cases}$
min



ب) $y = -x^2 + 4x + 1$

ext: $\begin{cases} 2 \\ 5 \end{cases}$
max



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$y = ax^2 + bx - 9x - 2 = 0 \rightarrow a + b = 1, ab = -2$

$3x + ck - 11 - 2 = 0 \rightarrow x^2 - (a+b)x + ab$

$F + k + 9 - 2 = 0 \rightarrow x^2 - x - 2 = 0 \rightarrow (x-2)(x+1) = 0$
 $x = 2, -1$

$\rightarrow \boxed{k = -2}$

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$\sqrt{a} - \sqrt{b} = 1$

$(\sqrt{a} - \sqrt{b})^2 = a + b - 2\sqrt{ab} = 1 \rightarrow 3m - 2\sqrt{m} - 1 = 0$

$\sqrt{m} = t, 3t^2 - 2t - 1 = 0$

$9t^2 - 4t - 3 = 0 \rightarrow (3t-3)(3t+1) = 0$

$t = 1, \left(-\frac{1}{3}\right) \rightarrow \text{مرد}$

$\Rightarrow m = 1$

$\boxed{-\frac{m}{3} = -\frac{1}{3}}$

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$y = 2x^2 - (m+2)x + m$

$2 + m - (m+2) = 0 \rightarrow \begin{cases} 2 \\ m \end{cases}$

$m \left(\frac{m-2}{2} \right) = \frac{2}{2} \times 2 \rightarrow m^2 - 2m - 2 = 0 \rightarrow (m-2)(m+1) = 0$
 $m = 2, -1$

$y = x^2 - mx + 1 \rightarrow \begin{cases} y = x^2 + 1x + 1 \rightarrow \left[-\frac{1}{2}\right] \\ y = x^2 - 2x + 1 \rightarrow \left[\frac{2}{2}\right] \end{cases}$

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$$y = ax + rx + a \quad \text{Lösung} \rightarrow a > 0$$

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$$\frac{-\Delta}{ra} = \frac{fa^r - 9}{fa} = \frac{v}{ar} \rightarrow \Lambda a^r - 1\Lambda = va$$

$$\Lambda a^r - va - 1\Lambda = 0$$

$$a^r - va - 1r^r = 0 \rightarrow (a-4)(a+9) = 0$$

Lösung $\leftarrow \frac{a=14}{3}, \frac{-9}{60}$

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$$1 - (a+1) + a = 0 \rightarrow b = 0 \rightarrow a$$

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$$a-1=r \rightarrow a=r$$

$$x^r - 1 \cdot x + b = 0 \rightarrow \frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{100 - 4b}}{1} = r$$

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$$100 - 4b = r^2 \rightarrow b = r^2 \rightarrow (x-4)(x-r) = 0 \rightarrow x=4$$

$$x=9$$

$$r^2 - r = 71$$

$$y = -ax^r + ax + r \rightarrow \frac{-a}{-ra} = \frac{1}{r} \rightarrow \text{ext} \begin{cases} \frac{1}{r} \\ \frac{a}{r} + r \end{cases}$$

$$r \left(\frac{1}{r} \right)^r - r \left(\frac{1}{r} \right) + r =$$

$$\frac{r}{r} - r + r =$$

$$- \frac{b}{r} - 1 = b = (r^2) \wedge$$

$$y = rbx^r - bx - 1 \rightarrow \frac{b}{ra} = \frac{1}{r} \rightarrow \text{ext} \begin{cases} \frac{1}{r} \\ \frac{-b}{r} - 1 \end{cases}$$

$$\left(\frac{1}{r} \right)^r \cdot rb - b \left(\frac{1}{r} \right) - 1 = \frac{a}{r} + r$$

$$\frac{b}{r} - \frac{b}{r} - 1 = \frac{a}{r} + r \rightarrow a = (-1r)$$

$$b - a = 9$$

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$$\frac{\beta}{ra\alpha} = d\beta \rightarrow \alpha = \pm \frac{1}{a}$$

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$$\frac{-r}{ra\alpha} = \alpha + \beta \rightarrow ra\alpha^r + ra\alpha\beta = -r$$

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$$\alpha = \frac{1}{a} \rightarrow \beta = -1 \quad \overline{00E}$$

$$\alpha = -\frac{1}{a} \rightarrow \beta = 1 \quad \overline{00}$$

$$y = -ax^r + \epsilon x + 1 \rightarrow \text{ext} = \begin{cases} \frac{r}{a} \\ \frac{a}{a} \end{cases} \quad \text{Dreh}$$

$$a+b = \frac{a^r + b^r - 1r}{1}$$

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$$ab = a+b-1$$

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

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

$$(a+b)^r - rab - 1r = 0$$

$$(a+b)^r - r(a+b) - 1 = 0$$

$$(a+b-a)(a+b+r) = 0$$

$$\boxed{a+b = a} \quad a+b = -r \quad \overline{00E}$$

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