

۲۰

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$y = ax^r + bx + c$ $y = a(x+1)^r + 9$ $y = a(x - x_0)^r + y_0$ $1 = a(0+1)^r + 9$ $1 = 14a + 9$ $-1 = 14a$ $a = \left(\frac{-1}{14}\right)$ $-\frac{1}{14}x^r - \frac{1}{14}x + 9 =$ $1\left(-\frac{1}{14}x^r - x + \frac{14}{14}\right) \rightarrow -x^r - 2x + 14$	۱
$rx^r + mx + m + 9$ $\Delta > 0$ $m^2 - 4(r)(m+9) > 0$ $m^2 - 4m - 36 > 0$ $(m-11)(m+3) > 0$ $m > 11 \quad m < -3$ $S > 0$ $-\frac{b}{a} = -\frac{m}{r} > 0$ $(m < 0)$ $-4 < m < -3$	۲
$rx^r + (rm-1)x + r-m=0$ $\Delta > 0$ $\frac{b}{a} = \frac{c}{c}$ $a^r = bc$ $-4m+1 = \frac{r}{r-m}$ $-4m+1 = m^r + r-m = 9$ $4m^r - 5m - 10 = 0$ $m^r - 5m - 10 = 0$ $(m-5)(m+2) = 0$	۳
$x = x^r - \varepsilon$ $x^r - \varepsilon - x = 0$ $S = +1$ $P = -\varepsilon$ $\alpha + \beta = (x_1 + x_2)^r - 1^r x_1 x_2 (x_1 + x_2) + \frac{x_1 + x_2}{x_1 x_2} \varepsilon x^r - \omega x - 221 = 0 $ $1 + 14 + \frac{1}{-\varepsilon} = 14 \cdot \frac{1}{\varepsilon} \cdot \frac{\omega 1}{\varepsilon}$ $\alpha \beta = (x_1 x_2)^r + (x_1 + x_2)^r - 1^r x_1 x_2 + \frac{1}{x_1 x_2} \Rightarrow \frac{-\omega - \omega \omega}{\varepsilon \varepsilon + 1 + 14} \cdot \frac{1}{\varepsilon} = \frac{-14}{\varepsilon}$	۴
$\left(\sqrt[r]{x^r} + \frac{1}{\sqrt[r]{x^r}} + 1\right)(\sqrt[r]{x^r} - 1) = r\sqrt[r]{x}$ $\sqrt[r]{x^r} + 1 + \frac{1}{\sqrt[r]{x^r}} - \sqrt[r]{x^r} - \frac{1}{\sqrt[r]{x^r}} - 1 = r\sqrt[r]{x}$ $x^r - 1 = r\sqrt[r]{x}$ $x^r - 1 = rx$ $x^r - rx - 1 = 0$ $x_1 + x_2 = \frac{-b}{a}$	۵

$rx^r - ax + \varepsilon = 0 \quad \alpha + \beta = \frac{a}{r}$ $\alpha = \frac{a}{r}(\alpha + \beta) = \pm 1$ $ a_1 - a_2 = (+1)r$ $ra^r = \frac{\varepsilon}{r}$ $a^r = \frac{\varepsilon}{a} \quad a = \frac{r}{\varepsilon} \Rightarrow \beta = r \quad \alpha + \beta = \frac{1}{r}$ $a^r = \frac{\varepsilon}{a} \quad a = -\frac{r}{\varepsilon} \quad \beta = -r \quad \alpha + \beta = -\frac{1}{r}$	6
$ax^r + (c + ra)x = y$ $a > 0$ $\frac{-ra - c}{a} > 0 \quad \rightarrow \text{no sol}$ $\left(-\frac{c}{r} < a < 0\right)$	7
$\frac{-a}{r} = \frac{r}{-r} \quad -a = r \quad a = r $ $x^r + rx - r = 1 \quad x^r + rx - r - 1 = 0 \quad (x^r + r)(x - 1) = 0 \quad (a \cdot b) = 1$ $-(x - 1)(x + c) + 1 = -x^2 - cx + \varepsilon \Rightarrow b = \varepsilon$	8
$rx^r - ax + b = 0 \quad rx^r + rx - r = 0$ $ra^r + ax - r = 0 \quad x^r + x - 1$ $\alpha + \beta = \frac{a}{r} + \beta + 1 \quad (x + \varepsilon)(x - c) \quad \frac{a}{r} = \frac{a}{r} + 1 \quad a - 1 \quad \frac{b}{r} = a\beta = -c \quad b = -c$ $\left[\frac{a}{r}\right] = \left[-\frac{c}{r}\right] \quad \frac{1}{r} = \frac{c}{r}$	9
$x^r + rx + m = 0 \rightarrow S = \frac{-r}{\alpha + \beta}$ $x^r + rx - cm = 0 \rightarrow S = \frac{-r}{\alpha + \beta}$ $\alpha - \beta = \alpha - \beta' = -r, r = \varepsilon \quad (\varepsilon)$	10