

$$m^2 - am + 5 = 0$$

$$a = \frac{1}{2} \Rightarrow \text{Jewelry}$$

$$a = \frac{1}{2} \Rightarrow r_2 - (-r_1) = 5 \Rightarrow$$

$$a = \frac{1}{2} \Rightarrow p = a \cdot b = \frac{5}{2} \Rightarrow \frac{1}{2} \cdot b = \frac{5}{2} \Rightarrow b = 5$$

$$b = 5 \Rightarrow \frac{a}{2} = 1 \Rightarrow a = 2$$

$$p = -r, a = -r \Rightarrow a + b = -1 \Rightarrow \frac{a}{2} = -1 \Rightarrow a = -2$$

$$m^2 - (m+1) = 0 \Rightarrow m^2 - m - 1 = 0$$

$$p = \frac{1}{2}$$

$$\frac{1}{a} + \frac{1}{b} = 0$$

$$\frac{1}{a} + \frac{1}{b} + \sqrt{\frac{1}{a \cdot b}} = 0 \Rightarrow \frac{1}{a} + \frac{1}{b} = -\sqrt{\frac{1}{a \cdot b}} \Rightarrow \frac{a+b}{a \cdot b} = -\sqrt{\frac{1}{a \cdot b}} \Rightarrow a+b = -\sqrt{a \cdot b}$$

$$m^2 - (m+1) = 0$$

$$m = \frac{m+1}{2} \Rightarrow \frac{m+1}{2} = -\frac{1}{2} \Rightarrow m = -1$$

$$\rightarrow -1 \cdot m^2 + m + 1 = 0$$

$$p = \frac{r}{-1}$$

$$m^2 + km - 9m - 1 = 0$$

$$a \cdot b = 51$$

$$a \cdot b = -1$$

$$p = -1$$

$$a + b = 1 \Rightarrow b = 1 - a$$

$$a \cdot b = -1 \Rightarrow a(1-a) = -1$$

$$a^2 - a + 1 = 0 \Rightarrow a = 1, b = 1 \rightarrow k = -1$$

$$a = 1, b = 1$$

$$a = -1 \Rightarrow -1 + k + 9 - 1 = 1 \Rightarrow k = -6$$

$$m^2 + km + a = 0$$

$$a < b < 0$$

$$m^2 + km + a = 0 \Rightarrow m^2 + km + a = 0$$

$$m^2 + km + a = 0 \Rightarrow m^2 + km + a = 0$$

$$\frac{a}{2} \cdot \frac{a}{2} + \frac{a}{2} = \frac{a}{2} \Rightarrow \frac{a}{2} \cdot \frac{a}{2} + \frac{a}{2} = \frac{a}{2}$$

$$5 - 1 = 4 = 2 \cdot 2$$

$$\frac{a}{2} (a + 1) + \frac{a}{2} = 1 \Rightarrow \frac{a}{2} (a + 1) + \frac{a}{2} = 1$$

$$(a+1)(a+1)$$

$$-4$$

$$a = -1 \Rightarrow -1 + k + 9 - 1 = 1 \Rightarrow k = -6$$

$$m^2 + km + a = 0$$

$$m^2 + km + a = 0 \Rightarrow m^2 + km + a = 0$$

$$a = 1$$

$$a = 1$$

$$a = \frac{a}{2} \Rightarrow \frac{a}{2} = \frac{a}{2}$$

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$$a = 1$$

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$$\left[\frac{a}{2} \right] =$$

$$a = 1$$

$$b = 1$$

$$a' + b' = \frac{a}{r} + \frac{b}{r}$$

$$a' + b' = a' + b' + \varepsilon = -\frac{1}{2} + \varepsilon = \frac{1}{r} \rightarrow \frac{1}{r} = \frac{a}{r} \rightarrow a = 1$$

$$r m' = r m + b \Rightarrow \frac{b}{r} = p = (\alpha' + r)(\beta' + r) = \alpha' \beta' + r(\alpha' + \beta') + r^2 = -\frac{1}{12} + r$$

$$a' + b' = 1$$

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

$$\left[\frac{ab}{\varepsilon} \right] = \left[\frac{r^2}{\varepsilon} \right] = 1$$

$$a m' = a m + b \Rightarrow$$

$$\varepsilon \alpha' \beta' + r \alpha' + r \beta' + r^2 = 1$$

$$\beta, \alpha$$

$$S = 1 \Rightarrow \alpha + \beta = 1 - \alpha \beta = 1$$

$$\alpha' + \beta' = S - r = 1 + \frac{1}{r}$$

$$\varepsilon \alpha' \beta' + r \alpha' + r \beta' + r^2 = 1$$

$$r(\alpha' + \beta') + r^2 = 1 + r^2 \Rightarrow r(1 + \frac{1}{r}) + r^2 = 1 + r^2 \Rightarrow r + 1 + r^2 = 1 + r^2 \Rightarrow r = 0$$

$$r = 0 \Rightarrow \frac{b}{a} = -\frac{1}{r} \rightarrow b = -\frac{a}{r}$$

$$\alpha - \beta = \frac{\sqrt{D}}{|a|} = \frac{\sqrt{a^2 + \varepsilon ab}}{|a|} \rightarrow \frac{\sqrt{a^2 + \varepsilon a r}}{|a|} = \sqrt{1 - \frac{1}{a}} = \frac{1}{\sqrt{a}}$$

(1)

$$m' = (a+1)m + a = 0 \quad |a=1|$$

$$\alpha' - \beta' = \frac{\sqrt{D}}{|a|} = \frac{\sqrt{(a+1)^2 - \varepsilon a}}{|a|}$$

$$m' = (2a+1)m + b \Rightarrow$$

$$a = 2a+1 \Rightarrow 2a+1 = 1$$

$$\alpha' - \beta' = 2a+1 - (2a+1) = 0$$

$$\alpha' \beta'$$

$$\alpha \beta = \alpha' \beta' \cdot ?$$

$$\frac{|a-1|}{|a|} = r \rightarrow r|a| = |a-1|$$

$$ra = a-1 \rightarrow a = -1 \quad \text{or}$$

$$ra = 1-a \rightarrow ra = -1 \rightarrow a = -\frac{1}{r}$$

$$a' = -1 \quad \beta' = 1 \rightarrow \alpha' \beta' = -1$$

$$ra, ra+r \rightarrow \beta' - \alpha' = r \rightarrow \frac{\sqrt{D}}{|a|} = \frac{\sqrt{(2a+1)^2 - \varepsilon b}}{|a|}$$

$$\frac{\sqrt{(2a+1)^2 - \varepsilon b}}{|a|} = r \rightarrow \sqrt{1 - r - \varepsilon b} = r \rightarrow b = -\frac{r}{1-r}$$

$$p = \frac{b}{r} = -\frac{1}{1-r}$$

$$-1 - (-\frac{r}{1-r}) = \frac{1}{1-r} = \alpha \beta - \alpha' \beta'$$

(2)

$$m' = 2a-1 - m' = 0$$

$$\alpha' \beta' = \alpha \beta = 0$$

$$\frac{(\alpha + \beta)^2 - 2\alpha\beta}{-1} = 1 + r(1+m') = 1 + r(1+m')$$

$$m' = 2m' + c \rightarrow m = 0 \rightarrow c$$

$$a = (x, y)$$

$$b = (-a, y)$$

$$a' = 1$$

$$y_0 = 1$$

$$\alpha \beta' = a \rightarrow (\alpha \beta')^2 - 2\alpha \beta = a \rightarrow \alpha' = a \beta$$

$$\alpha' = a \beta = a \beta' \cdot ?$$

$$r = \sqrt{a \beta} = p$$

$$p = \sqrt{a \beta}$$

$$? = c$$

$$r_a = r$$

Unerwartet

$$\alpha + \beta = \alpha' + \beta' + \varepsilon = -\frac{1}{r} + \varepsilon = \frac{v}{r} \rightarrow \frac{v}{r} = \frac{a}{r} \rightarrow a = v$$

$$r_m' - v_m + b = 0$$

$$\frac{b}{r} = p = (\alpha' + r)(\beta' + r) = \alpha'\beta' + r(\alpha' + \beta') + \varepsilon = -\frac{4}{12} + \varepsilon$$

$$ab = v a \left(-\frac{4}{r} + \varepsilon \right) = -4 + \varepsilon r = 0$$

$$b = -\frac{4}{r} + \varepsilon$$

$$\left[\frac{ab}{\varepsilon} \right] = \left[\frac{0}{\varepsilon} \right] = 0$$

$$a_m' - a_m = 0, \quad \varepsilon + \beta' + r + \alpha' - r + \beta = 0$$

$$\beta, \alpha \quad \text{والمعنى هو} \quad \{v\}$$

$$\beta' + \alpha' = S - r, p = 1 + \frac{rb}{a}$$

$$r\beta' + r + \alpha' - r + \beta = 0 \rightarrow r\beta' + \alpha' + \beta = 0$$

$$S = 1 \rightarrow \alpha + \beta = 1 - \varepsilon \rightarrow \alpha + \beta = 0$$

$$r(\beta' + \alpha') + (1 + \beta)(\beta - 1) = r(1 + \frac{rb}{a}) + (1 + \beta)(\beta - 1) = r + 4 \cdot \frac{b}{a}$$

$$\alpha - \beta = \frac{\sqrt{D}}{|a|} = \frac{\sqrt{a^2 + \varepsilon ab}}{|a|} \rightarrow \frac{\sqrt{a^2 + \varepsilon a^2 \frac{b}{r}}}{|a|} = \sqrt{1 - \frac{1}{a}} = \frac{r}{\sqrt{a}}$$

$$m' - (a+1)m + a = 0 \quad |a=1|$$

$$\alpha' - \beta' = \frac{\sqrt{D}}{|a|} = \frac{\sqrt{(a+1)^2 - \varepsilon a}}{|a|}$$

$$m' - (a+1)m + a = 0$$

والمعنى هو

$$a = r(a+1) \rightarrow r(a+1) = \beta$$

$$\alpha' - \beta' = r + r - (r(a+1)) = r$$

والمعنى هو

$$\alpha/\beta$$

$$\alpha/\beta = \alpha/\beta' \text{ ؟}$$

$$\frac{|a-1|}{|a|} = r \rightarrow r|a| = |a-1|$$

$$ra, r(a+1) \rightarrow \beta' - \alpha' = r \rightarrow \frac{\sqrt{D}}{|a|} = \frac{\sqrt{(ra+1)^2 - \varepsilon b}}{|a|}$$

$$ra = a-1 \rightarrow a = -1 \quad \text{و}$$

$$\frac{\sqrt{(ra+1)^2 - \varepsilon b}}{|a|} = r \rightarrow \sqrt{1 - \varepsilon b} = r \rightarrow b = -\frac{r}{\varepsilon}$$

$$ra = 1 - a \rightarrow ra = -1 \rightarrow a = -\frac{1}{r} \quad \text{و}$$

$$p = \frac{b}{r} = -\frac{r}{r} = -1$$

$$-1 - (-\frac{r}{r}) = \frac{1}{r} = \alpha/\beta - \alpha/\beta'$$

$$\alpha' = -1 \quad \beta' = 1 \rightarrow \alpha/\beta' = -1$$

(9)

$$r_a \leq 1 - a \rightarrow \infty a \rightarrow a = \frac{1}{e} \text{ (Q2)}$$

$$a' = -1 \quad b' = 1 \rightarrow a/b' = -1$$

$$m' \leq a - 1 - m' \leq 0$$

$$y_{\min} = r m' + c \rightarrow m \leq 0 \rightarrow c$$

Let

$$P = \frac{b}{r} = -\frac{a}{r}$$

$$-1 - (1 - \frac{a}{r}) = \frac{1}{r} = a/b - a/b'$$

$$a + b \text{ (Q2)} \leq c$$

$$\frac{(a+b)^2 - r a, b}{-1} = 1 + r(1 - m') = 1 + r m'$$

Q2 (9)

$$n_{\text{ext}} = \frac{-a + c}{r} = -1$$

$$\frac{b}{ra} = 1 \rightarrow b = ra$$

$$n_{\text{ext}} = 1$$

$$a n' + r a n + c = 1 \rightarrow a - r a + c = 1 \rightarrow c = a + 1$$

$$a n' + r a n + a + 1 = 0$$

$$(\alpha, \beta)' - r \alpha \beta = 0 \rightarrow \alpha - r \left(\frac{a+1}{a} \right) = r - \frac{r}{a} = 0 \rightarrow a = \frac{r}{1-r}$$

$$c = a + 1 = \frac{r}{1-r} + 1 = \frac{1}{1-r}$$

جواب: (1.)