

۱۹, ۵

$$\frac{-b}{2a} = 2 \quad \frac{-1}{2a-2} = 2 \Rightarrow 2a-2 = -1 \rightarrow 2a = 1 \rightarrow a = \frac{1}{2}$$

$$a-1 = \frac{1}{2} - 1 = -\frac{1}{2} \Rightarrow -\frac{1}{2}x^2 + x + 3 = 0$$

$$x = \frac{-1 \pm \sqrt{1+3}}{-\frac{1}{2}} \quad \begin{cases} x = -2 \\ x = 6 \end{cases} \quad \boxed{x = 6} \quad \checkmark$$

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$$m < 0$$

$$\Delta > 0 \rightarrow 2a - 4m^2 > 0 \rightarrow (2 - 2m)(2 + 2m) > 0 \quad \frac{-\frac{a}{2}}{-1} + \frac{a}{2} =$$

$$\frac{-a}{2} < m < 0 \quad \checkmark$$

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$$S = \frac{3-\sqrt{5}}{2} + \frac{3+\sqrt{5}}{2} = \frac{6}{2} = 3$$

$$P = \left(\frac{3-\sqrt{5}}{2}\right)\left(\frac{3+\sqrt{5}}{2}\right) = \frac{9-5}{4} = \frac{4}{4} = 1$$

$$x^2 - 2x + \frac{4}{9} = 0 \quad \checkmark \rightarrow 4x^2 - 18x + 4 = 0$$

سوال گفته با ضرب موج!

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$$\alpha + \beta = 5 \Rightarrow \beta = 5 - \alpha$$

$$2\alpha^2 + (5-\alpha)^2 = 12 \rightarrow 2\alpha^2 + \alpha^2 + 10 - 10\alpha = 12 \rightarrow 3\alpha^2 - 10\alpha + 2 = 0$$

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

$$m = \alpha \rightarrow 2 - 10 + m + 2 = 0 \Rightarrow m = 6 \quad \checkmark$$

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$$\frac{-b}{2a} = 2 \Rightarrow -b = 4a \quad \frac{x=2}{2a-2b+d=9} \rightarrow 2a-10a+d=9 \rightarrow -8a+d=9$$

$$c = d \rightarrow -8a = 9 \rightarrow a = -1$$

$$-a^2 + 4a + d = 0 \rightarrow -(a-d)(a+1) \quad \frac{-1}{-1} + \frac{d}{1} =$$

$$(-1, d) \quad \checkmark$$

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$$\alpha + \beta = \frac{V}{\alpha} \begin{cases} r + \beta = \frac{V}{r} \Rightarrow \beta = \frac{V}{r} \\ -r + \beta = \frac{V}{-r} \Rightarrow \beta = \frac{V}{r} \checkmark \end{cases} \Rightarrow \begin{cases} \alpha = -r \\ \beta = \frac{V}{r} \end{cases}$$

$$\alpha\beta = \frac{V\beta}{\alpha} \Rightarrow \alpha^2 = V \Rightarrow \alpha = \pm\sqrt{V}$$

$$\frac{1}{\alpha} + \frac{1}{\beta} = \frac{-1}{r} + \frac{r}{r} = \frac{-r+V}{r} = \frac{V}{r} \checkmark$$

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$$\alpha^r \in r_m - m\alpha \Rightarrow \alpha^r - m\beta = 1 \rightarrow r_m - m\alpha - m\beta = 1$$

$$m(r + (\alpha + \beta)) = 1 \rightarrow m(r + m) = 1 \rightarrow m^r + r_m - 1 = 0$$

$$\Rightarrow m = -r \times \Delta < 0$$

$$m = r \checkmark \Delta > 0 \Rightarrow r^r + r_m - r = 0 \Rightarrow r = -r \checkmark$$

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$$\frac{-\Delta}{r_a} = 1 \Rightarrow \frac{19 - r_m^r - r_m}{-r_m} = -1 \Rightarrow 19 - r_m^r - r_m = -r_m^r$$

$$r_m^r - r_m - 19 = 0 \Rightarrow m^r - r_m - 1 = 0 \rightarrow m = r \times m < 0$$

$$m = -r \checkmark$$

$$-r\alpha^r + r\alpha + r = 0 \rightarrow -r^r + r\alpha + r = 0 \rightarrow -(r-r)(\alpha+1) = 0$$

$$\Rightarrow r = r \checkmark \quad \boxed{r = r} \checkmark$$

$$r = -1 \times$$

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$$\frac{-b}{r_a} = r \rightarrow -b = r_a$$

$$a\alpha^r - ra + r = y \xrightarrow{\alpha=r} ra - ra + r = y$$

$$\rightarrow -ra = r \rightarrow a = -\frac{1}{r}, b = r \Rightarrow -\frac{1}{r}r^r + r + r = y$$

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

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$$r^r - (ra + r)\alpha + (a+1)(ra + r) = 0 \Rightarrow a+1 \in r \Rightarrow a = 1$$

$$r^r - 1\alpha + 1 = 0 \rightarrow (r-r)(\alpha-1) = 0 \Rightarrow \alpha = 1 \checkmark$$

$$a = \frac{1}{r} \rightarrow r^r - \frac{1}{r}\alpha + \frac{r}{r} = 0 \rightarrow (r-r)(\alpha - \frac{1}{r}) = 0 \Rightarrow \alpha = \frac{1}{r} \checkmark$$

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