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لبنان ابراهيم - تليغ ۱۳ مارچ ۲۰۲۰

$$y = (a-1)x^2 + x + 2 \quad x=2$$

$$\frac{-b}{2a} = 2 \quad \frac{-1}{2(a-1)} = 2 \quad 2a-2 = -1 \quad 2a = 1 \quad a = \frac{1}{2}$$

$$0 = -\frac{1}{2}x^2 + x + 2 \rightarrow x = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-1 \pm \sqrt{1 - 4(-\frac{1}{2})(2)}}{2(-\frac{1}{2})} = \frac{-1 \pm \sqrt{1+4}}{-1} = \frac{-1 \pm \sqrt{5}}{-1}$$

$$\rightarrow \frac{-1+2}{-1} = \frac{1}{-1} = -1 \quad x$$

$$\rightarrow \frac{-1-2}{-1} = \frac{-3}{-1} = 3 \quad \checkmark$$

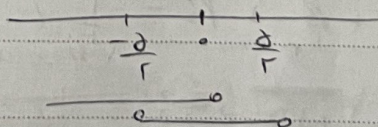
$$f(x) = mx^2 - 2x + m$$

$$\Delta = 4 - 4m^2 < 0 \quad \begin{array}{c|cc} x & x_1 & x_2 \\ \hline f(x) & b+b & - \end{array}$$

$$b^2 - 4ac < 0 \rightarrow b^2 - 4m^2 < 0 \rightarrow 2m > 2 \quad \text{or} \quad 2m < -2$$

$$\frac{2m}{2} > m \rightarrow \frac{2}{2} < m < \frac{2}{2}$$

$$1 \cap 2 \rightarrow \boxed{-\frac{2}{2} < m < \frac{2}{2}}$$



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

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

$$x^2 - 5x + 6$$

$$y = x^2 - 5x + 6$$

$$y = 9x^2 - 18x + 9 = \dots$$

Date:

Sub:

$$r\alpha^r - \lambda x + m + r = 0 \quad r\alpha^r + \beta^r = 1r$$

$$S = \frac{\lambda}{r} \quad \alpha + \beta = \varepsilon \rightarrow \beta = \varepsilon - \alpha$$

$$r\alpha^r + (\varepsilon - \alpha)^r = 1r$$

$$r\alpha^r + 1r + \alpha^r - \lambda\alpha = 1r \quad r - \lambda + m - r = 0$$

$$\varepsilon\alpha^r - \lambda\alpha + \varepsilon = 0$$

$$m = \varepsilon$$

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

$$S(r, q)$$

$$y = a(x-r)^r + q$$

$$\varepsilon a + q = 0 \rightarrow a = -r$$

$$-(x-r)^r + q > 0$$

$$(x-r)^r + q < 0$$

$$x^r + \varepsilon - \varepsilon x - q < 0$$

$$x^r - \varepsilon x - 0 < 0 \rightarrow (x-0)(x+1) < 0$$

$$-1 < 0$$

$$+1 < 0$$

$$x = 0$$

$$x = -1$$

$$(-1, 0)$$

$$a x^r - v x + q \beta = 0 \quad \frac{1}{a} + \frac{1}{\beta} =$$

$$P \Rightarrow a\beta = \frac{q\beta}{a} \quad a^r\beta = q\beta \rightarrow a^r = q \rightarrow a = \pm r$$

$$S = a + \beta = \frac{v}{a}$$

$$a = +r \rightarrow \frac{v}{r} = r + \beta \rightarrow \beta = -\frac{r}{r}x$$

$$\checkmark a = -r \rightarrow -\frac{v}{r} = -r + \beta \rightarrow \beta = \frac{r}{r}x$$

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

$$x^r + mx - r m = 0 \quad x^r - m\beta = 1 \quad \text{--- V}$$

$$\beta^r + m\beta - r m = 0 \rightarrow \beta^r - r m = -m\beta \quad (5)$$

$$x^r - m\beta = 1 \rightarrow \underbrace{x^r + \beta^r}_{s^r - r^r} - r m = 1 \rightarrow x^r + \beta^r - r m - 1 = 0 \rightarrow$$

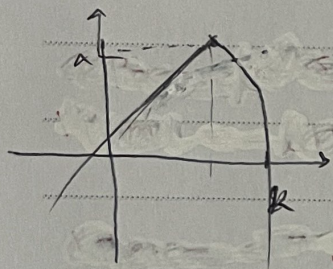
$$m^2 + r m - 1 = 0 \quad (m + \beta)(m - r) = 0$$

$$m = -\beta, +r$$

$$m = r \rightarrow x^r - \beta x + 1 = 0 \rightarrow \Delta < 0, \text{ no sol}$$

$$m = -\beta \rightarrow x^r + \beta x - \beta = 0 \rightarrow \beta = -\frac{b}{r a} = \boxed{-\frac{r}{r}} \quad \text{--- 1}$$

$$f(x) = mx^r + \beta x + \frac{m}{r} + V$$



$$-\frac{\Delta}{2a} = 1$$

$$-\Delta = 2a$$

$$-(14 - \beta(m))\left(\frac{m}{r} + V\right) = 2rm$$

$$-14 + \beta m^r + r \beta m = 2rm$$

$$rm^r - \beta m - 14 = 0$$

$$m^r - r m - 1 = 0$$

$$(m - \beta)(m + r) = 0 \quad \begin{cases} m = \beta \\ m = -r \end{cases}$$

$$-rx^r + \beta x + 4 = 0$$

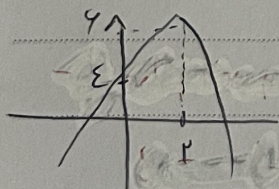
$$x^r - r m - r = 0$$

$$(x - r)(x + 1) = 0$$

$$x = r, \checkmark$$

$$x = -1 \times$$

$$\boxed{x = r}$$



$$y = a(x - r)^2 + 4$$

$$\beta a + 4 = \beta \rightarrow \beta a = -4 \rightarrow a = -\frac{1}{r} \quad (5)$$

$$-\frac{1}{r}(x^r - \beta x + \beta) + 4 \Rightarrow -\frac{1}{r}x^r + \beta x - \beta + 4 \Rightarrow -\frac{1}{r}x^r + \beta x + \beta \Rightarrow x^r + \beta x + 1$$

$$\frac{1}{a} + \frac{1}{\beta} \Rightarrow \frac{a + \beta}{a\beta} \rightarrow \frac{\beta}{-1} = \boxed{-\frac{r}{r}}$$

$$x^r - (\beta a + \beta)x + (ra^r + 4a + r) = 0 \quad \text{--- 10}$$

$$x = r, \beta - 1a - 1 + ra^r + 4a + r = 0 \quad ra^r - ra - 1 = 0 \quad \checkmark, a^r - ra = 1 \quad (5)$$

$$a = 1 \rightarrow x^r - 1x + 1r = 0 \quad (m - 4)(x - 1) = 0 \quad x = 4$$

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

$$a = \frac{r}{r} = 1 \quad a = -\frac{1}{r}$$

$$a = -\frac{1}{r} \rightarrow x^r - \frac{1}{r}x + \frac{\beta}{r} = 0 \quad \frac{1}{r} \pm \sqrt{\frac{4\beta}{r} - \beta\left(\frac{\beta}{r}\right)} \rightarrow \frac{1}{r} \pm \frac{\beta}{r} \quad \frac{\beta}{r} = r$$

$$\boxed{x = 4, \frac{r}{r}}$$

$$\frac{\beta}{r} = \boxed{\frac{r}{r}}$$