

Subject

Year .

Mont .

Day .

هـ انا فداعتى - دهم بنينينه C - بللف شفاء ١٣

①

$$y = ax^2 + bx + c \rightsquigarrow w', = (-1, 9)$$

(۳۱) : گدا

$$\frac{-b}{1a} = -1 \leadsto -b = -1a \leadsto b = 1a$$

$$\frac{fac - b^r}{fa} = \frac{fac - fa^r}{fa} = c - a = 9 \leadsto c = a + 9$$

~~$$y = ax^r + rax + a + 9$$~~

$$\underbrace{(3,1)}_1 = 9a + 9a + a + 9 \leadsto 19a = -1 \leadsto a = -\frac{1}{19}$$

$$\Rightarrow b = r\alpha = r\left(-\frac{1}{r}\right) = -1$$

$$\Rightarrow c = a + 9 = -\frac{1}{p} + 9 = -\frac{1}{p} + \frac{9p}{p} = \frac{9p-1}{p}$$

$$y = -\frac{1}{p}x^p - x + \frac{14}{p}$$

②

$$yx^p + \ln x + m + y = 0$$

$$\frac{m+4}{r} > 0 \leadsto m+4 > 0$$

$$b^r_{-fac} > 0 \leadsto m^r - \epsilon x^r(m+4) > 0 \leadsto m > -4$$

$$m^2 - 14m - 61 > 0 \rightarrow (m - 14)(m + 6) > 0$$

x | $-f$ | 14
 y | $+$ | $-$ | $+$

$\sim (-\infty, -f) \cup (14, +\infty)$

$$\frac{-b}{r_a} = \frac{-m}{r} > 0 \leadsto -m > 0 \leadsto m < 0$$

$$\frac{f_{ac} - b^r}{f_a} = \frac{f \times r \times (m+y) - m^r}{1} = m+y - \frac{m^r}{1} < 0$$

$$\lambda m + F\lambda - m^r < 0 \leadsto m^r - \lambda m - F\lambda > 0 \leadsto (-\infty, -\epsilon) \cup (1r, +\infty)$$


 $x < -4$

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$$r^2 x^r + (rm - 1)x + r - m = 0$$

(3)

$$\frac{-b}{a} = \frac{1-rm}{r}$$

$$\frac{1-rm}{r} = \frac{r}{r-m} \Rightarrow (1-rm)(r-m) = r$$

$$\frac{c}{a} = \frac{r-m}{r}$$

$$r-m - rm + rm^r = r$$

$$rm^r - \Delta m - r = 0$$

$$m^r - \Delta m - r = 0 \Rightarrow (m-r)(m+r) = 0$$

$$\Rightarrow m = \frac{r}{r} \checkmark \Rightarrow \boxed{m = \frac{r}{r}}$$

$$\hookrightarrow m = \frac{-r}{r} = -1 \Rightarrow \text{Q.E.D.}$$

$$b^r - \Delta c = (rm - 1)^r - r \times r^2 (r - m)$$

$$\xrightarrow{m=-1} (-r-1)^r - r \times r^2 (r+1) = r - r^2 = -r^2 \Rightarrow \Delta < 0$$

$$\xrightarrow{m=\frac{r}{r}} (r \times \frac{r}{r} - 1)^r - r \times r^2 (r - \frac{r}{r}) = r^r - r^2 (r - \frac{r}{r})$$

$$= r^r - r^2 + r^2 = r^r - r^2 + r^2 = r^r - r^2 = \Delta^r \Rightarrow \Delta > 0$$

(4)

$$x = x^r - r \Rightarrow x^r - x - r = 0$$

$$x_1 = -(-1) = 1$$

$$x_1^r + \frac{1}{x_1} + x_1^r + \frac{1}{x_1} = x_1^r + x_1^r + \frac{1}{x_1} + \frac{1}{x_1}$$

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

$$(x_1 + x_1)^r = x_1^r + x_1^r + r x_1 x_1 (x_1 + x_1)$$

$$1^r = x_1^r + x_1^r + r(-r) \times 1$$

$$x_1^r + x_1^r = 1 + 1r = 1^r$$

$$\frac{1}{x_1} + \frac{1}{x_1} = \frac{x_1 + x_1}{x_1 x_1} = \frac{1}{-r} = -\frac{1}{r} \Rightarrow 1^r - \frac{1}{r} = \frac{r^r - 1}{r} = \frac{\Delta^r}{r}$$

$$(x_1^r + \frac{1}{x_1}) (x_1^r + \frac{1}{x_1}) = x_1^r x_1^r + x_1^r + x_1^r + \frac{1}{x_1 x_1}$$

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

$$(x_1 + x_1)^r = x_1^r + x_1^r + r x_1 x_1 \Rightarrow 1 = x_1^r + x_1^r - 1 \Rightarrow x_1^r + x_1^r = 2$$

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$$y = x^r - 5x + p$$

$$S = \frac{\omega}{F}, p = -\frac{r\omega}{F} \rightarrow \boxed{y = x^r - \frac{\omega}{F}x - \frac{r\omega}{F}}$$

$$Fy = Fx^r - \omega x - r\omega$$

$$\left(\sqrt[r]{x^r} + \frac{1}{\sqrt[r]{x^r}} + 1\right) \left(\sqrt[r]{x^r} - 1\right) = r\sqrt[r]{x}$$

$$\begin{aligned} & \left(x\sqrt[r]{x} + 1 + \sqrt[r]{x^r} - \sqrt[r]{x^r} - \frac{1}{\sqrt[r]{x^r}} \right) = x\sqrt[r]{x} - \frac{1}{\sqrt[r]{x^r}} = r\sqrt[r]{x} \\ & x\sqrt[r]{x^r} \quad x^r - 1 = r x \rightarrow x^r - r x - 1 = 0 \end{aligned}$$

$$b^r - 4ac = (-r)^r - 4 \times 1 \times (-1) = r + r = 2$$

$$\frac{r \pm r\sqrt{r}}{r} = 1 \pm \sqrt{r} \rightarrow 1 + \sqrt{r} + 1 - \sqrt{r} = \boxed{2}$$

$$r x^r - a x + b = 0$$

$$\frac{r}{r} = r \alpha^r \rightarrow \alpha^r = \frac{r}{r} \rightarrow \alpha = \pm \frac{r}{r}$$

$$\frac{a}{r} = r \alpha = r \times \left(\pm \frac{r}{r}\right) = \pm \frac{r}{r} \rightarrow \alpha = \pm 1$$

$$+1 - (-1) = 1 + 1 = \boxed{2}$$

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$$y = ax^2 + (3+2a)x \rightsquigarrow \text{میدان}$$

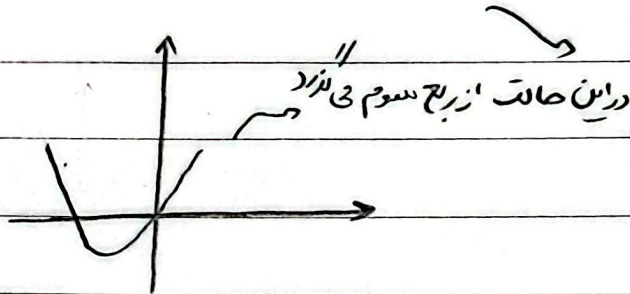
(✓)

$$\rightsquigarrow a > 0$$

$$\rightsquigarrow \frac{-3-2a}{a} < 0 \rightsquigarrow \text{جمع ریشه‌ها منفی است}$$

ن. ا. ی هیچ مقدار a

ریشه‌ها از ریشه‌ها ۰ و یکی از ریشه‌ها منفی باشد



(^)

$$y = x^2 + ax - 2 \rightsquigarrow \frac{-b}{2a} = \frac{-a}{2} = -1 \rightsquigarrow -a = -2$$

$$a = 2$$

$$y = -x^2 - 2x + b \rightsquigarrow \frac{-b}{2a} = \frac{2}{-2} = -1$$

$$y = x^2 + 2x - 2 \rightsquigarrow y=1 \rightsquigarrow 1 = x^2 + 2x - 2 \rightsquigarrow x^2 + 2x - 3 = 0$$

$$\rightsquigarrow (x+3)(x-1) = 0 \rightsquigarrow x = -3$$

$$\rightsquigarrow x = 1$$

$$(1, 1) \rightsquigarrow 1 = -1 - 2 + b \rightsquigarrow b = 4$$

$$(-3, 1) \rightsquigarrow 1 = -9 + 4 + b \rightsquigarrow b = 6$$

$$\rightsquigarrow b = 4$$

$$ab = 2 \times 4 = 8$$

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$$rx^r - ax + b = 0 \leadsto \frac{a}{r}$$

(9)

$$ra x^r + ax - 9 = 0 \leadsto \frac{-a}{ra} = \frac{-1}{r}$$

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

$$rx^r + x - 9 = 0$$

$$(x_1 + \frac{1}{r})(x_r + \frac{1}{r}) =$$

$$\hookrightarrow x_1^2 = -\frac{1}{r}$$

$$x_1 x_r + \frac{1}{r} x_1 + \frac{1}{r} x_r + \frac{1}{r^2}$$

$$-x_1^2 = \frac{-9}{r} = -9$$

$$-9 + \frac{1}{r}(x_1 + x_r) + \frac{1}{r^2} =$$

$$-9 + \frac{1}{r}(-\frac{1}{r}) + \frac{1}{r^2} = 9 - \frac{1}{r^2} + \frac{1}{r^2} = 9$$

$$\leadsto \frac{b}{r} = -9 \leadsto b = -9$$

$$\left[\frac{ab}{r} \right] = \left[\frac{1 \times (-9)}{r} \right] = [-1, 9] = [-r]$$

(10)

$$x^r + 4x + m = 0 \leadsto -4 \text{ سطر } 1, 2$$

$$x^r + rx - 3m = 0 \leadsto -r \text{ سطر } 1, 2$$

$$x^r + 4x + m = x^r + rx - 3m$$

$$rx = -4m \leadsto x = -m \text{ سطر } 1, 2$$

$$-r + m$$

$$-4 + m$$

$$-r + m + 4 - m = [4]$$