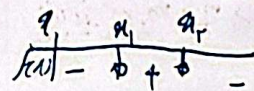
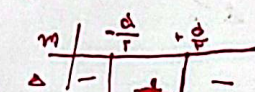
 $-\frac{1}{r}x^2 + x + r = 0$ $b^2 - 4ac \geq 1 + 4r \Rightarrow \sqrt{1+4r}$ $\frac{-1 \pm \sqrt{1+4r}}{-\frac{1}{r}} = -r \pm \sqrt{1+4r}$	$\frac{-b}{2a} = r$ $\frac{-1}{2(a-1)} = r \Rightarrow -1 = 2a - r \Rightarrow a = \frac{r}{2}$ 1
$mx^2 - dx + m = f(x)$  	$\Delta > 0 \Rightarrow (d - rm)(d + rm) > 0$ $m < 0 \Rightarrow \begin{cases} m < -\frac{d}{r} \\ m > +\frac{d}{r} \end{cases}$ 2
$f_2 = \frac{q}{r} = r$ $p_2 = \frac{r}{q}$ $9x^2 + 61x + 18$	$ax^2 + bx + c$ $-\frac{b}{a} = r$ $\frac{c}{a} = \frac{r}{q}$ 3
$r\alpha^2 + \alpha^2 + \beta^2 = r\alpha^2 + (3-r)\alpha^2 + (1-r)\alpha^2 = 1$ $\alpha + \beta = r$ $\alpha\beta = \frac{m}{r} + 1 = \frac{r\alpha}{r} + 1$ $r\alpha^2 + 1 = m + r \Rightarrow \alpha^2 = \frac{m-r}{r}$	$m < r$ $m < r$ 4
$e^{\frac{9x^2}{4}} \geq c \geq \omega$ $y = -x^2 + 6x + 5 \Rightarrow x_1 = -1, x_2 = 5$ $y = \alpha(\alpha - h)^2 + k \Rightarrow \omega = \alpha(0 - r)^2 + 9 \Rightarrow -r = \alpha(r) \Rightarrow \alpha = -1$ $\frac{-1}{-1 + 5} \Rightarrow (-1, 5) \text{ is a root}$	5

$$\alpha\beta = \frac{1}{\alpha}, \alpha^2 = 1 \Rightarrow \alpha = \pm 1 \text{ و } \alpha + \beta = \frac{1+\alpha}{\alpha} \Rightarrow \alpha^2 + \alpha\beta = 1 + \alpha \Rightarrow \alpha = -1$$

$$\alpha = -1, \beta = \frac{1}{\alpha} \Rightarrow \frac{1}{-1} + \frac{1}{1} = \frac{-1}{-1} = \frac{1}{1}$$

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$$\alpha + \beta = -1 \text{ و } \alpha\beta = -1 \text{ و } \alpha^2 + \beta^2 = 1 \Rightarrow \alpha^2 + \beta^2 + 2\alpha\beta = 1$$

$$\alpha^2 + \beta^2 - 2 = 1 \Rightarrow \alpha^2 + \beta^2 = 3$$

$$m^2 + m = 1 \Rightarrow m^2 + m - 1 = 0 \Rightarrow m = \frac{-1 \pm \sqrt{5}}{2}$$

با استفاده از فرمول درج دوم و به دست می آید: $m_1 = \frac{-1 + \sqrt{5}}{2}$ و $m_2 = \frac{-1 - \sqrt{5}}{2}$

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$$\text{مثال 1: } \frac{1}{x} > 0 \Rightarrow \frac{1}{x} > 0 \Rightarrow x > 0 \text{ و } m(\frac{1}{x}) + (\frac{-1}{m}) + \frac{m}{x} + 1 = 1$$

$$\frac{m+1}{x} > 0 \Rightarrow \frac{-1}{x} > 0$$

$$\frac{1}{m} - \frac{1}{m} + \frac{m}{x} = 1$$

$$y = -x^2 + x - 1, y_2 = -x^2 + x + 1 < 0$$

$$-x^2 + x + 1 < 0$$

$$x_1 = -1, x_2 = 2$$

$$-1 + m = 2m$$

$$m = 1$$

$$x_1 = 1, x_2 = 2$$

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$$C = \frac{1}{x} \Rightarrow y = \alpha(x-h) + k \Rightarrow f = \alpha(-r) + k \Rightarrow \alpha = \frac{-f + k}{-r}$$

$$y = \frac{1}{x} \Rightarrow y = \frac{1}{x} \Rightarrow y = \frac{1}{x}$$

$$y = \frac{1}{x} \Rightarrow y = \frac{1}{x}$$

$$\frac{1}{\alpha} = \frac{1}{\beta} = \frac{1}{\gamma} = \frac{1}{\delta} = \frac{1}{\epsilon}$$

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$$x = r \Rightarrow r = 1 \neq 1 + (ca + ra) = 0$$

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

$$ca + ra = 0 \Rightarrow ca = -ra$$

$$\delta = r \Rightarrow a = \frac{r}{\delta}$$

$$\delta = \frac{1}{9}$$

$$\alpha + \beta = \frac{1}{\alpha} + \frac{1}{\alpha} = \frac{2}{\alpha}$$

جواب نهایی: $\frac{1}{9}$

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