

$$S = \alpha + \beta = \frac{V}{\alpha} \quad \frac{1}{\alpha} + \frac{1}{\beta} = ? \text{ a jola } \alpha \text{ و } \beta \text{ : } \alpha n^2 - Vn + 9\beta = 0$$

$$P = \alpha\beta = \frac{9}{\alpha} \rightarrow \alpha\beta = 9\beta \quad \beta > 0 \rightarrow \alpha = 9 \quad \alpha = \pm 3$$

$$\alpha = +3 \rightarrow 3 + \beta = \frac{V}{3} \quad \beta = \frac{V}{9} \quad \alpha \text{ و } \beta \text{ : } \alpha$$

$$\alpha = -3 \rightarrow -3 + \beta = \frac{V}{-3} \quad \beta = \frac{V}{-9} \quad \alpha \text{ و } \beta \text{ : } \alpha$$

$$\frac{1}{\alpha} + \frac{1}{\beta} = \frac{1}{3} + \frac{1}{-9} = \left(\frac{V}{9}\right)$$

$$S = \frac{-b}{a} = -m \quad ? \text{ نازل } \alpha^2 - m\beta = 1 \quad n^2 + mn - 1m = 0$$

$$1m - m\alpha - m\beta = 1 \quad \alpha^2 = 1m - m\alpha$$

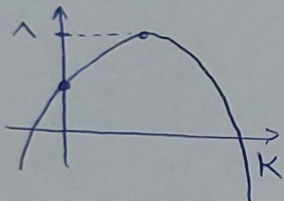
$$1m - m(\alpha + \beta) = 1 \quad m\beta = 1m - \beta^2$$

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

$$(m+1)(m-1) = 0 \rightarrow m = -1 \text{ or } m = 1$$

$$m = -1 \rightarrow n^2 - 1n + 1 = 0 \quad \Delta < 0 \quad \text{محل ندارد}$$

$$m = 1 \rightarrow n^2 + 1n - 1 = 0 \rightarrow S = \frac{-b}{a} = \frac{-1}{1} = (-1)$$



نازل و مثبت

$$f(n) = mn^2 + 1m + \frac{m}{1} + V$$

$$\frac{-\Delta}{4a} = \frac{-(1 - 4m)(\frac{m}{1} + V)}{4m} = \frac{1m^2 + 1Vm - 14}{4m} = 1$$

$$1m^2 + 1Vm - 14 = 4m$$

$$1m^2 - 4m - 14 = 0$$

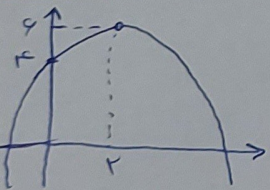
$$m^2 - 4m - 14 = 0$$

$$(m-4)(m+1) = 0 \rightarrow m = -1 \rightarrow -1m^2 + 1m + 4 = 0$$

$$m = 4 \text{ or } m = -1$$

$$-1(m-4)(m+1) = 0$$

$$K = n = +1$$



$$y = a(n-r)^2 + 4 \rightarrow n=0 \quad fa+4=f$$

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

$$\frac{1}{r}n^2 + 1m + f = 0$$

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

$$P = \frac{c}{a} = \frac{r}{\frac{-1}{r}} = (-1)$$

$$\frac{1}{\alpha} + \frac{1}{\beta} = \frac{S}{P} = \frac{r}{-1} = \left(\frac{-1}{r}\right)$$

$$n^2 - (1a+1)n + (1a^2+1a+1) = 0$$

$$n=1 \rightarrow 1 - 1a - 1 + 1a^2 + 1a + 1 = 1a^2 - 1a - 1 = 0 \rightarrow a=1$$

$$\Delta > 0 \quad 1a^2 + 1a + 1 - 1a^2 - 1a - 1 = 0 \quad 1a^2 + 1a + 1 > 0$$

$$(a+1)^2 > 0 \rightarrow a \neq -1$$

$$a=1 \rightarrow n^2 - 1n + 1 = 0$$

$$(n-1)(n-1) = 0 \rightarrow n=1$$

$$a = \frac{-1}{r} \rightarrow n^2 - \frac{1}{r}n + \frac{r}{r} = 0$$

$$P = \frac{r}{r} = 1 \times n \rightarrow n = \frac{r}{r}$$

(تلفیف) $y = (a-1)x^2 + x + 3$

(فاصله شکاری)

(بازدهم دفعه)

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

$-1 = 4a - 4$
 $3 = 4a$
 $\frac{3}{4} = a$

آنکه از این معادله دو جواب در دسترس نیست $n=2$ معادله باشد این معادله

(1)

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

$\frac{-1 \pm \sqrt{1 - 4(-\frac{1}{2})(3)}}{2(-\frac{1}{2})}$

$\frac{-1+2}{-1} = -2$
 $\frac{-1-2}{-1} = 3$

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

مردم m ؟

x	x_1	x_2
$f(x)$	-	+

$m < 0$

$\Delta > 0 \rightarrow 4 - 4m^2 > 0$

$\frac{4}{m} > m^2$

$\frac{4}{m} > m > -\frac{4}{m}$

$-\frac{4}{m} < m < \frac{4}{m}$

(2)

معادله درجه دوم که ریشه هایش $\frac{3+\sqrt{5}}{2}$, $\frac{3-\sqrt{5}}{2}$ باشد ؟

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

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

$x^2 - 3x + 1 = 0 \rightarrow 4x^2 - 12x + 4 = 0$

(3)

$14x - m - 2$ ؟ مقدار m ، $\alpha^2 + \beta^2 = 14$, $\alpha < \beta$

$2\alpha^2 + (\alpha + \beta)^2 = 14$
 $19 - (m+2)$

$14x - m - 2 + 19 - m - 2 = 14$

$14x = 2m$

$7x = m$

$\alpha\beta = \frac{m+2}{7} = \frac{7x+2}{7}$

$\beta = \frac{7x+2}{7\alpha}$

$\alpha + \beta = \frac{7x+2 + 7\alpha^2}{7\alpha} = 14$

$7\alpha^2 - 7\alpha + 2 = 0$, $\beta = 14$
 $7(\alpha-1)^2 = 0$, $\alpha = 1$

$m = 7$

(4)

معادله درجه دوم که ریشه هایش α و β باشد و $\alpha + \beta = 9$ و $\alpha\beta = 2$ باشد ؟

$y = a(x-2)^2 + 9 \rightarrow a(0-2)^2 + 9 = 5$

$4a + 9 = 5$
 $4a = -4$, $a = -1$

$y = -x^2 + 4x + 5 = 0$

$y = -(x-0)(x+1) > 0$

$(x-0)(x+1) < 0$

-1	0	+
+	-	+

$-1 < x < +1$

(5)