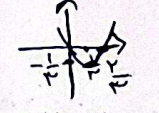
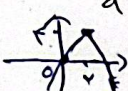


الف) $y = \frac{3}{4}x^2 - 2x$ $a > 0 \rightarrow \min$ $x_s = -\frac{b}{2a} = \frac{2}{\frac{3}{2}} = \frac{4}{3} \Rightarrow y_s = -\frac{\Delta}{4a} = -\frac{1}{3}$ نامیبی سرف

$3x^2 - 2x = x(x - \frac{2}{3})$ $y=0 \rightarrow \begin{cases} x=0 \\ x=\frac{2}{3} \end{cases}$ 

ب) $y = -\frac{1}{4}x^2 + 2x$ $a < 0 \rightarrow \max$ $x_s = -\frac{b}{2a} = 2 \Rightarrow y_s = -\frac{\Delta}{4a} = 1$ نامیبی دسرف




الف) $y = 2x^2 - 5x + 2 \rightarrow a > 0 \rightarrow \min$ $x_s = -\frac{b}{2a} = \frac{5}{4}$ $y_s = -\frac{\Delta}{4a} = -\frac{b^2 + 4ac}{4a} = -\frac{25 + 16}{16} = -\frac{9}{4}$ نامیبی اول دردم و چهارم

x	1	5/4	2
y	-1	-9/4	-1

ب) $y = -x^2 + 4x - 1 \rightarrow a < 0 \rightarrow \max$ $x_s = -\frac{b}{2a} = 2$ $y_s = -\frac{\Delta}{4a} = -\frac{b^2 + 4ac}{4a} = -\frac{16 + 4}{-4} = 5$ نامیبی اول دردم و چهارم دسرف

x	1	2	3
y	2	7	2



الف) $\frac{a+B}{a-B} = \frac{5}{\sqrt{13}} = \frac{1}{\frac{\sqrt{13}}{5}} = \frac{\sqrt{13}}{13}$ ✓ $s = -\frac{b}{a} = \frac{1}{1} = 1 \Rightarrow p = \frac{c}{a} = -3$

$x^2 - x - 3 = 0$

ب) $a^2 + B^2 = s^2 - 2p = 1 - (-6) = 7$ ✓

2) $a^3 + B^3 = s^3 - 3sp = 1 + 9 = 10$ ✓

3) $a^3 - B^3 = (a-B)(a^2 + aB + B^2)$

$= (\frac{\sqrt{13}}{13}) (s^2 - 2p + p) = (\frac{\sqrt{13}}{13}) (7 - 3) = \frac{4\sqrt{13}}{13}$ ✓

$y = \frac{(x-2)(x^2 - ax + a)}{x}$ تجزیه جاری (۱,۵)

$\Delta < 0$ اصله

$\frac{1}{a^2 - 4a} < 0$

$\frac{a(a-4)}{0} < 0$

$\frac{x}{y} \begin{matrix} 0 & 4 \\ 1 & 4-p \end{matrix} \rightarrow (0, 4)$

$\rightarrow -10, 2, 4$

$1/2 a^2 - ax + a \rightarrow$ \rightarrow $(a-2)^2 = a^2 - 4a + 4$, $a=2$ (I)

$2x^2 - 12x - a = 0$, $2a^2 + B^2 - 4a = 7 \rightarrow a^2 + a^2 + B^2 - 4a = 7$ $s^2 - 2p + \frac{a}{2} = 7$

$2a^2 - 12a - a = 0 \Rightarrow a^2 - 4a = \frac{a}{2}$ $s = -\frac{b}{a} = 2$, $p = \frac{c}{a} = -\frac{a}{2}$ $4 + \frac{2a}{2} + \frac{a}{2} = 7$

$2B^2 - 12B - a = 0$ $14 + \frac{2a}{2} = 7$

$2x^2 - 12x + 9 = 0$ $\frac{a}{2} = \frac{9}{2} = \frac{-3}{2}$ ✓ (۲) $\Rightarrow 14 + a = 7$

$x^2 - 12x + 17 = 0$ $\Rightarrow a = -9$

$(x-9)(x-17) = 0$

$B(\sqrt{-2a+9-r}) = A(\frac{ra+r}{r} \frac{a-r}{r}) \quad a=3 \rightarrow$ در جواب

$\frac{\sqrt{-2a+9-r}}{r} = b = \frac{a}{r} \quad S(a, r) \rightarrow \frac{-b'}{ra'} = a \Rightarrow b' = -10a'$

$a'x^r + b'x + c = y \quad a'x^r - 10a'x + c = y \quad x=3 \rightarrow y=3 = 27a' - 30a' + c = -3a' + c = 3 \Rightarrow a' = -1 \Rightarrow c = 1$
 $k=1 \rightarrow a' + b' + c = 1 \Rightarrow -1 + b' + 1 = 1 \Rightarrow b' = 1$
 $a' + -ba' + c = 1 \Rightarrow -1 - 3(-1) + 1 = 1 \Rightarrow -1 + 3 + 1 = 1 \Rightarrow 3 = 1$ (خطا)

با استفاده از بیان می شود

$F_0 B^r + r_0 a^r - r_0 B = 1V \quad dx^r - dx - b = 0$
 $r_0 B^r + a^r - B = 0 \Rightarrow \Delta$
 $S^r - rP + \frac{b}{a} = 1 + \frac{r_0 b}{a} = 0 \Rightarrow \Delta \quad B^r - B = \frac{b}{a} \quad |4-B| = \frac{\sqrt{\Delta}}{|a|} = \sqrt{\frac{r_0}{a}}$

$\frac{\sqrt{r_0}}{a} = \frac{\sqrt{\frac{r_0}{a}}}{\frac{r_0}{a}} = \frac{\sqrt{r_0 a}}{r_0}$
 $\frac{r_0}{a} = \frac{r_0}{\frac{r_0}{a}} = \sqrt{\frac{r_0}{a}}$

$(-a, B), (1, B) \quad \frac{1-x}{r} = -r \rightarrow dx^r \rightarrow \frac{-b}{ra} = -r \Rightarrow b = ra$

$ax^r + rax + \frac{r}{r} = y \quad x = -r, y = -\frac{1}{r} \rightarrow ra - ra + 1 = -0.18$
 $\Rightarrow ra = r \Rightarrow a = \frac{1}{r} \quad \frac{1}{r} x^r + rx + \frac{r}{r} = y \rightarrow x=1 \rightarrow \frac{1}{r} + r + \frac{r}{r} = \frac{r}{r}$

$x^r + 4x + a = 0 \rightarrow x^r + 4x = -a$
 $P=a, S=-4 \quad Fx^r + rFx = -ra$

$x_1 = \frac{-9 + \sqrt{49 - 4a}}{2}, x_2 = \frac{-9 - \sqrt{49 - 4a}}{2}$
 $r(-r - \sqrt{9-a})^r + r(-r + \sqrt{9-a})^r = 90 - 2a + 4\sqrt{9-a} = 18 + 14\sqrt{9-a}$
 $\Rightarrow a=1$

$r_0 a^r + r_0 B^r = 11\sqrt{r} + 18$
 $r(S^r - rP) + a^r = 11\sqrt{r} + 18 \quad x^r - ra = 11 + 11\sqrt{r} \Rightarrow a=1$
 $(-r - \sqrt{9-a})^r = 9 + 9 - a + 4\sqrt{9-a} = 18 - a + 4\sqrt{9-a}$
 $(-r + \sqrt{9-a})^r = 9 + 9 - a - 4\sqrt{9-a} = 18 - a - 4\sqrt{9-a}$

$\frac{1}{\sqrt{a}} + \frac{1}{\sqrt{b}} = \frac{\sqrt{b} + \sqrt{a}}{\sqrt{ab}} = a \rightarrow a\sqrt{ab} = \sqrt{b} + \sqrt{a}$
 $raP = S + r\sqrt{P}$

$rx^r - (m+1)x + 1 = 0$
 $S = -\frac{b}{a} = \frac{m+1}{r}, P = \frac{c}{a} = \frac{1}{r}$
 $r\sqrt{\frac{1}{r}} = \frac{r}{a} = \frac{11}{r}$

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

$\frac{rS}{r_0} = \frac{m+1+r}{r} \Rightarrow m+r = rS = 1 \Rightarrow m = -1$

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