

$$\frac{(x^2 - 2x - 1)(x^2 - 3x - 4)}{1 - 2x} = x(x+1)(x+\frac{1}{3})(x-\frac{4}{3}) \cdot 2$$

$$\rightarrow -6 \left(n^2 - \frac{13}{6}n - \frac{5}{6} \right) = -6n^2 + 13n + 5$$

$$\max x = \frac{169}{12}$$

$$\max = -\frac{\Delta}{2a} = \frac{-(169 + 12)}{2 \cdot 12}$$

$$r(\alpha + \beta) + r(\alpha \cdot \beta) + v = r \frac{(m+r)}{m} + v = -\frac{r}{m}$$

$$m = r$$

$$mx^r - (m+r)x - r = 0$$

$$r(m+r) + vm = -r$$

$$rm + r^2 + vm + r = 0$$

$$(\alpha + \beta)^r = s^r - r\beta = \frac{1}{r} + (-r) \left(\frac{-r}{0.11} \right) = \frac{1}{r} + \frac{r^2}{0.11}$$

$$10m + 11 = 0 \Rightarrow m = -1.1$$

$$x^r - \alpha x + r = 0 \Rightarrow \alpha = r \Rightarrow \beta = \frac{r}{\alpha}$$

$$\frac{r}{\alpha} + \frac{r}{\beta} = \frac{r^2}{\alpha\beta} \Rightarrow \frac{r^2}{\alpha\beta} = \frac{s^r - r\beta}{\alpha} = 19$$

$$r\alpha\beta^2 + r - 2\alpha\beta + r\alpha = 0$$

$$-8\beta - 12\beta - 8\alpha + 12\alpha = 0$$

$$-8(\beta + \alpha) = 0 \Rightarrow \beta = -\alpha$$

$$y_1 = ax^r + bx + c = rx + 1 \Rightarrow x = r$$

$$\begin{cases} ra + rb = 1 \\ 9a - rb = 0 \end{cases} \Rightarrow a = 1, b = r \Rightarrow x = -r \Rightarrow ax^r + x(b-r) + c = 0$$

$$c - 1 = 0 \Rightarrow c = 1$$

$$a(x-r)(x+r) = 0 \Rightarrow a(x^2 - r^2) = 0$$

$$9a - rb = 0 \Rightarrow 9a - rb = -1$$

$$9a - rb = -1$$

$$9a - rb = -1$$

$$y = rx^r + (m+1)x + m + 4 = x$$

$$rx^r + mx + m + 4 = 0$$

$$\Delta = 0$$

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

$$m = 12$$

$$m = -5$$

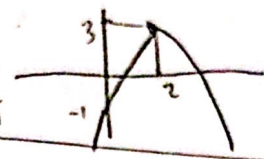
$$(m-1)(m+5) = 0$$

$y = m^2 - 4x + 7 \rightarrow \begin{cases} -\frac{b}{2a} = \frac{4}{2} = 2 \\ y = 4 - 4 + 7 = 7 \end{cases}$



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$y = -m^2 + 4m - 1 \quad \begin{cases} -\frac{b}{2a} = \frac{4}{-2} = -2 \\ y = -4 + 4 - 1 = -1 \end{cases}$



$2m^2 + (m+1)m + \frac{1}{2}m + 2 = 0$
 $(m+1)^2 - (4)(2)(\frac{1}{2}m+2) \geq 0 \rightarrow \Delta \geq 0$
 $(m+1)^2 - (4)(2)(\frac{1}{2}m+2) \geq 0$
 $m^2 + 1 + 2m - 4m - 16 \geq 0$
 $m^2 - 2m - 15 \geq 0$
 $(m-5)(m+3) \geq 0$
 $m \leq -3 \text{ or } m \geq 5$

$(m \leq -3) \cup (m \geq 5) \rightarrow \Delta \geq 0$

$y = (m-2)x^2 - 2(m+1)x + 1$

1) مع x هادری نقطه منفی - ضریب $m-2 < 0$

$\frac{2(m+1)}{m-2} < 0 \rightarrow m \in \emptyset$

2) معادله x^2 ضریب $m-2 > 0$ و $\Delta \geq 0$ - مجموع ضرایب $2(m+1) > 0$

$y = (m-2)x^2 - 2(m+1)x + 1$

$\Delta \geq 0 \rightarrow m < 2$
 $4(m+1)^2 - 4(1)(m-2) \geq 0$

$4(m^2 + 4m + 1) - 4(m-2) \geq 0$
 $4m^2 + 16m + 4 - 4m + 8 \geq 0$
 $4m^2 + 12m + 12 \geq 0$
 $m^2 + 3m + 3 \geq 0$

$\frac{-m-1}{m-2} = 2 \rightarrow -m-1 = 2m-4 = 3m-5 \rightarrow m=1$

$\frac{r}{r} - (r \sin \alpha) n + \frac{w}{r} = -$

$\Delta \geq 0 \rightarrow r \sin^2 \alpha + (-r)(\frac{w}{r}) \geq 0$

$r \sin^2 \alpha = r$
 $\sin \alpha = 1$

$X = \frac{w}{r}$

$\sin \alpha = -1$