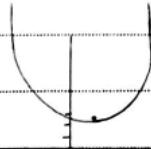


طالع حسان عفا، يارهم، تلف

$$x^r - rx + v \rightarrow \frac{-b}{ra} = x_s = \frac{-r}{r} = -1$$

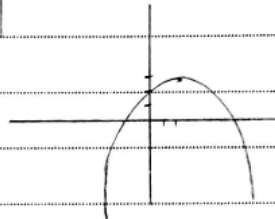
$$y_s = r - 1 + v = r$$



5.

$$-x^r + rx - 1 \rightarrow \frac{-b}{ra} = x_s = \frac{-r}{-r} = 1$$

$$y_s = -r + 1 - 1 = -r$$



$$10 \quad rx^r + (m+1)x + \frac{1}{r}m+r = 0$$

$$\text{ا) } \Delta > 0 \rightarrow m^r + rm + 1 - r^2 > 0 \Rightarrow m^r + rm - 1 > 0 \Rightarrow (m-r)(m+r) > 0$$

$$\text{ب) } \Delta = 0 \rightarrow m^r + rm - 1 = 0 \Rightarrow (m-r)(m+r) = 0 \Rightarrow m = -r \Rightarrow m \in \{-r, \Delta\}$$

$$\text{ج) } \Delta < 0 \rightarrow (m-r)(m+r) < 0 \Rightarrow m \in (-r, \Delta)$$

$$\text{د) } \Delta \geq 0 \rightarrow (m-r)(m+r) \geq 0$$

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$$\rightarrow m \in (-\infty, -r] \cup [\Delta, +\infty)$$

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

$$\text{ا) } \Delta > 0, S < 0, P > 0 \quad r(m^r + rm + 1) - r^2(m-r) > 0 \rightarrow rm^r - r^2m + 1 > 0 \quad \checkmark$$

$$\frac{r(m+1)}{m-r} < 0 \Rightarrow m \in (-1, r)$$

$$\frac{1}{m-r} > 0 \rightarrow m > r \rightarrow m \in (r, +\infty)$$

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$$\text{ب) } P < 0 \rightarrow \frac{1}{m-r} < 0 \Rightarrow (-\infty, r) \cup (r, +\infty)$$

$$S < 0 \rightarrow \frac{r(m+1)}{m-r} < 0 \Rightarrow (-1, r)$$

-E

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

$$\text{ا) } P < 0 \rightarrow \frac{1}{m-r} < 0 \Rightarrow (-\infty, r)$$

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$$\text{ب) } x_s = -r \rightarrow \frac{x(m+1)}{x(m-r)} = -r \rightarrow -rm + r = m+1$$

$$rm = r$$

$$m = 1$$

$$\frac{rx^r}{r} - (r \sin \alpha)x + \frac{r}{r} = 0 \quad \Delta \geq 0 \quad r \sin^2 \alpha - r \geq 0 \Rightarrow \sin^2 \alpha \geq 1 \Rightarrow \sin \alpha = \pm 1$$

$$\sin \alpha = -1 \rightarrow S = -r \rightarrow \text{QGC}$$

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$$\sin \alpha = 1 \Rightarrow \frac{r}{r}x^r - rx + \frac{r}{r} = 0 \rightarrow x^r - rx + 1 = 0$$

$$(x - \frac{r}{r})^r = 0 \Rightarrow x = \frac{r}{r}$$

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$$\frac{(rx^r - rx - 1)(rx^r - rx - \Delta)}{1 - x^r} = \frac{(x-1)(rx+1)(x+1)(rx-\Delta)}{-(x-1)(x+1)} = -4x^r + 13x + \Delta$$

$$\frac{-\Delta}{ra} = y_s = \max = \frac{-(149 + 12)}{r2} = \frac{ra9}{r2}$$

$$5 \quad mx^r - (m+r)x - r = 0$$

$$r(\alpha + \beta) = \Delta \alpha \beta + v \rightarrow r5 = \Delta P + v \rightarrow rx \frac{m+r}{m} = \Delta x \frac{-r}{m} + v \rightarrow rm + 4 = vm - 1$$

$$rm = 14 \\ m = 2$$

$$rx^r - 4x - r = 0 \rightarrow \alpha^r + \beta^r = 5^r - rD = \frac{9}{2} + 1 = \frac{11}{2}$$

$$x^r - \Delta x + r = 0$$

$$10 \quad \rho = r = \alpha \beta \rightarrow \beta = \frac{r}{\alpha^r}$$

$$\frac{r\alpha + \beta^{\Delta}}{\Delta \beta^r} = \frac{r\alpha^r + (\alpha^r \beta^r) \beta^r}{r} = \frac{r(\alpha^r + \beta^r)}{r} = \frac{1r\Delta - r}{\Delta} = \frac{9\Delta}{\Delta} = 9$$

$$y_1 = ax^r + bx + c \rightarrow y_1 = c \Rightarrow c = 2$$

$$y_r = rx + 1 \quad y_1 = 2$$

$$15 \quad ax^r + bx + r = rx + 1 \Rightarrow ax^r + (b-r)x - 4 = 0$$

$$ra^r + rb - 1 = 0$$

$$9a - rb = 0$$

$$b = 9a$$

$$ra + r(9a) = 1 \Rightarrow 10a = 1 \Rightarrow a = \frac{1}{10}$$

$$a = 1$$

$$b = r$$

$$\rightarrow \frac{-r}{r} = x$$

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$$y = rx^r + (m+1)x + m + 4 \quad rx^r + mx + m + 4 = 0$$

$$y_1 = x$$

$$m^r - 1m - r1 = 0$$

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

$$\begin{cases} 1r & \text{GUE} \\ -2 \end{cases}$$

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