

19, 5

اصول دینفارسی از دفتر استادان

$$\rightarrow (\log 2) \Rightarrow 1 - \log_c^{-b} = 2 \rightarrow -1 = \log_c^{-b} \rightarrow \frac{1}{c} = -b \quad (1)$$

$$\rightarrow Cb = +1 \rightarrow Cb = -1 = P \quad (2)$$

$$\Rightarrow x^2 - Sm + P = x^2 + \frac{P}{x} n - 1 = 0 \rightarrow (n + \frac{1}{x})(n + 2)$$

$$\rightarrow n = +\frac{1}{x} \ominus -2 \rightarrow C = \frac{1}{x}, b = -2 \rightarrow (\frac{-2}{x}, 0)$$

$$\rightarrow \log \frac{-\frac{2}{x} + 2}{\frac{1}{x}} \rightarrow a = 1 \rightarrow \text{خوابه بدست} : \frac{P}{x} * (-2) = \boxed{-\frac{2}{x}} \checkmark$$

$$\rightarrow (\log 2) \Rightarrow 1 + Cx(r^a) = \frac{P}{x} \rightarrow Cx r^a = \frac{-1}{x} \quad (1)$$

$$\rightarrow (\log 0) \Rightarrow 1 + Cx(r^{a+b}) = 0 \rightarrow Cx r^{a+b} = -1$$

$$\Rightarrow r^b = r \Rightarrow b = +1 \rightarrow f(-1) = 1 + Cx r^{a-b} = 1 + \frac{1}{x} = \boxed{\frac{1+x}{x}} \checkmark$$

$$\begin{aligned} (\log 2) &\rightarrow C + \log \frac{b}{a} = 2 \\ (\log 0) &\rightarrow C + \log \frac{r^{a+b}}{a} = 0 \end{aligned} \xrightarrow{\text{دو}} \log \frac{b}{r^{a+b} a} = 2 \rightarrow \frac{b}{r^{a+b} a} = 10^2$$

$$\rightarrow 40a + 2ab = b \rightarrow 40a = -2ab \rightarrow \boxed{\frac{a}{b} = \frac{-2}{40}} \checkmark$$

$|x^r - x| > a$ (۲) (۳)

$$\frac{x^r - a - r \quad \sqrt{r} \quad -a^r - a - r \quad \sqrt{r} \quad a^r - a - r}{x^r - a - r \quad -a^r - a - r \quad a^r - a - r}$$

$x^r - a - r \rightarrow \frac{(+r)(-)}{(a-r)(a+r)} > 0 \rightarrow \frac{-1}{+1} \frac{+r}{-} \rightarrow (-\infty, -\sqrt{r}]$

$-a^r - a - r \rightarrow -\frac{(+)(-)}{(a-r)(a+r)} > 0 \rightarrow \frac{-r}{-1} \frac{+1}{-} \rightarrow [-\sqrt{r}, +1)$

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

$\Rightarrow f(x) = (-\infty, +1) \cup (r, +\infty)$ ✓

$g(1) = e \rightarrow f(1) = e \rightarrow r = r^{b-a} \rightarrow b-a=1$
 $\hookrightarrow f(-1) = 10 \rightarrow r^e = r^{b+a} \rightarrow b+a=e$
 $r^b = e \rightarrow b=r \rightarrow a=1$ ✓

$\rightarrow \text{دومینو} \Rightarrow r^b - a = e - 1 = \frac{r^e}{e} \leftarrow$

$y = x^r - a = g(x)$ (۲) (۳)

$\rightarrow g(1) = 0 \rightarrow f(1) = 0 \rightarrow -r + (\frac{1}{r})^{A+B} = 0$

$\rightarrow r^{-(A+B)} = r^1 \Rightarrow A+B = \frac{-1}{r}$

$\rightarrow g(r) = r \rightarrow f(r) = r \rightarrow -r + (\frac{1}{r})^{rA+B} \rightarrow -rA+B = r$

$\rightarrow rA+B = r \rightarrow \begin{cases} A+B = \frac{-1}{r} \\ rA+B = r \end{cases} \Rightarrow \begin{cases} A = -1 \\ B = 0 \end{cases}$

$\rightarrow f(r) = -r + (\frac{1}{r})^{r^2} = -r + 1 = \boxed{+1} \leftarrow$

اشهرين ریزقواس ما زهم ریزقاس

$$\frac{1}{4} A_1 = A_1 \times \left(\frac{A}{A}\right)^{+14} \rightarrow 4 = \left(\frac{A}{A}\right)^{\frac{+}{4}} \rightarrow \log 4 = \frac{+}{4} \log \frac{A}{A} \quad (1)$$

$$\Rightarrow \log \frac{4}{A} + \log A^2 = \frac{+}{4} + \frac{+}{12} = \frac{+}{4} (2 \log A - 2 \log A) \quad (2)$$

$$\Rightarrow \frac{4A}{12 \times 4} = \frac{+}{4} \left(\frac{1A}{12 \times 4}\right) \Rightarrow \boxed{+ = 280} \checkmark \leftarrow \text{جواب سوال}$$

$$\frac{A_1}{V} = \left(\frac{V A_1}{A}\right)^{\frac{+}{V}} \rightarrow \frac{1}{V} = \left(\frac{V}{A}\right)^{\frac{+}{V}} \rightarrow V = \left(\frac{A}{V}\right)^{\frac{+}{V}} \quad (1)$$

$$\Rightarrow \log \frac{V}{A} = \frac{+}{V} \log \frac{A}{V} \Rightarrow \frac{10}{4} = \frac{+}{V} \left(\frac{40}{14} - \frac{10}{4}\right)$$

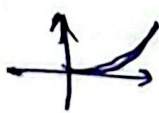
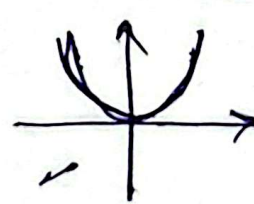
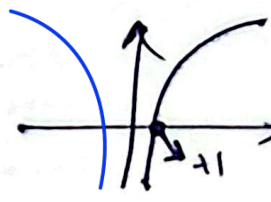
$$\Rightarrow \frac{4}{V} = \frac{+}{V} \left(\frac{4}{A}\right) \Rightarrow \boxed{+ = 28} \checkmark \leftarrow \text{جواب سوال}$$

$$\frac{1}{4} = \left(\frac{44}{100}\right)^{\frac{+}{4}} \rightarrow 4 = \left(\frac{100}{44}\right)^{\frac{+}{4}} \rightarrow \log 4 = \frac{+}{4} \log \frac{100}{44} \quad (1)$$

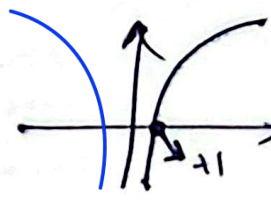
$$\Rightarrow \frac{4}{100} = \frac{+}{4} (4 - \log 44) = \frac{+}{4} (4 - (2 \log 11 + \log 2))$$

$$\rightarrow \frac{4}{100} = \frac{+}{4} \left(\frac{4}{11}\right) \Rightarrow \boxed{+ = 22} \checkmark \leftarrow \text{جواب سوال}$$

ج) $9 \log_2^a = a \log_2^a = a^2 \Rightarrow$

$D = (0, +\infty)$   

$\leftarrow x^2$ (10) (15)

ب) $y = 2 \log^a \Rightarrow$ 

$\log^a \quad D = \mathbb{R} - \{0\}$