

$$x^2 - x + 1 \quad x - 1$$

$$\frac{x^2+1}{x} \quad 12 \quad (1, 12)$$

$$x - x > 0 \quad x > x$$

$$x - 1 > 0 \quad x > 1$$

$$x > 1$$

$$(x, +\infty) \rightarrow [x, +\infty)$$

$$[1, +\infty)$$

$$Df_c [x, y]$$

$$\frac{x^2+1}{x} \quad 12 \quad (1, 12)$$

$$x^2+1 \neq 0$$

$$\frac{\sqrt{x-1}}{x-1}$$

$$x-1 > 0 \quad x > 1 \quad [1, +\infty)$$

$$x-1 > 0 \quad x > 1 \quad (1, +\infty)$$

$$Df_c [x, +\infty) - \{1\}$$

$$\frac{r(x+1)}{(x+1)+x^2}$$

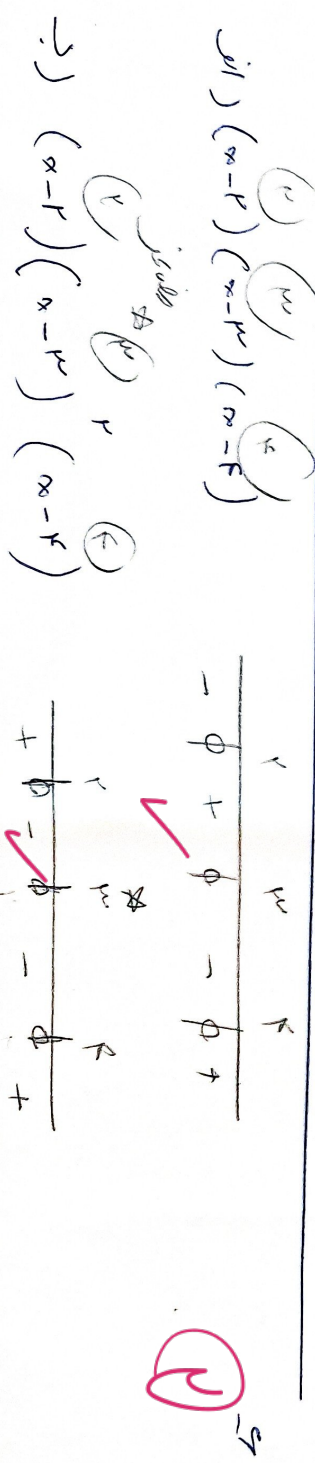
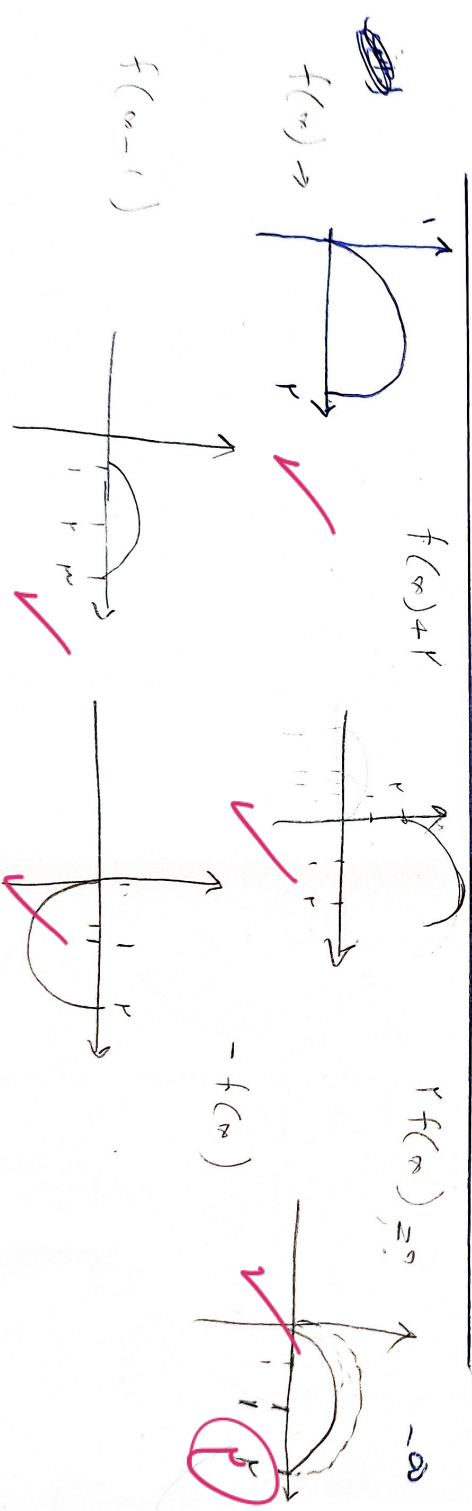
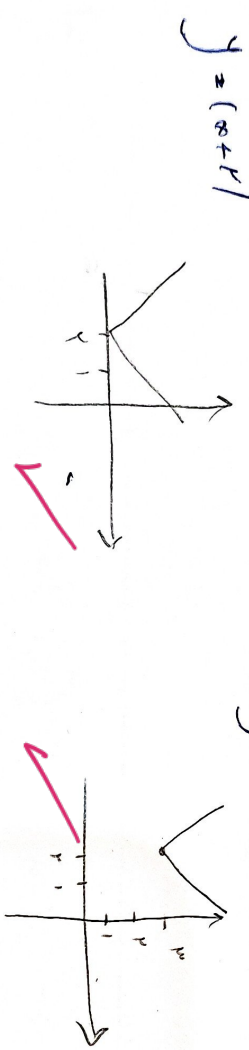
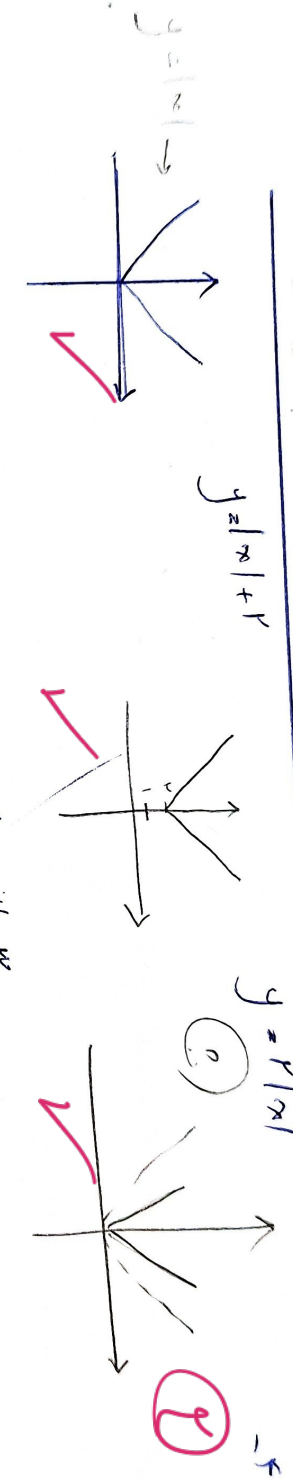
$$|x|+x^2 > 0$$

$$|x| > -x^2$$

$$x^2 - 1 < 0$$

$$x^2 < 1$$

$$-1 < x < 1$$



$$\frac{(x-2)(x-3)}{(x-3)} \quad (1)$$

$$\frac{(x-2)(x-3)}{(x-3)^2} = \frac{(x-2)}{(x-3)} \quad (2)$$

تجزیه به ضرایب

$$\frac{(x-2)(x-3)}{(x-3)} = \frac{(x-2)}{(x-3)}$$

$$\frac{(x-2)(x-3)}{(x-3)} = \frac{(x-2)}{(x-3)}$$

$$\frac{(x-2)(x-3)}{(x-3)} = \frac{(x-2)}{(x-3)}$$

(1)

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

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

۱- قسمت الف

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

$$x^3 - x^2 = 0$$

$$\frac{-1}{x^2 + x + 2}$$

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(1)

قسمت ب سوال ۹! صفر

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

$$\frac{x^3 - 1}{x^2 - 2} \geq 0$$

$$\frac{-1}{x^2 - 2}$$

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(1/5)

دامنه ها را بنویس

$$Df = (-\infty, -1) \cup (0, +\infty) - \{1\}$$

$$\frac{x^2 - 19}{x^2 - 2x + 4}$$

$$\frac{(x+4)(x-4)}{(x-4)(x-1)}$$

$$\frac{(x-4)(x+4)}{(x-4)(x-1)}$$

$$Df = (-\infty, -4] \cup (1, +\infty) - \{4\}$$

$$\frac{-4}{x^2 - 2x + 4}$$

استاد ریاضی

1) $y' - x = kx^r$

14, 12

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1

حل المعادلة $\Rightarrow \begin{cases} y' = kx^r + x \\ y' = kx^r + x \end{cases} \rightarrow y' = y' \rightarrow y = y$

(1)

$\rightarrow |y| + x^r = x + kx^r$

$\Rightarrow \begin{cases} |y| = -x + kx^r + x \\ |y| = kx^r \end{cases}$

حل المعادلة $kx^r \in \text{مجال}$ $|y| = -x + kx^r + x$ $y = \pm y$

2) $\sqrt{x-k} + |y-r| = 0$

$\sqrt{x-k} = -|y-r|$

حل المعادلة

(نلاحظ)

مجال

مجال

$x = k$ $y = r$

المعادلة هي معادلة تفاضلية

$\rightarrow x = \cos y$

الحل $\Rightarrow x \Rightarrow 0 \Rightarrow \cos y \rightarrow 0 \rightarrow y = \pi/2$

$y = 0 \rightarrow y = \pi/2$

$y = \frac{x+k}{x^r - kx}$

$x^r - kx \neq 0$ $x(x-k) \neq 0$

$R = \{0, k\} \Rightarrow D_f$

$\begin{cases} x=0 \\ x=k \end{cases}$

$y = \frac{x+k}{x^r - kx + 1}$

$x^r - kx + 1 \neq 0$

$R' = D_f$

المعادلة هي معادلة تفاضلية

$y = \frac{x+k}{x^r + x + k}$

$x^r + x + k \neq 0$

$R' = D_f$

المعادلة هي معادلة تفاضلية

$y = \frac{x+k}{x^r - kx^r}$

$x^r(x-k) \neq 0$

$x^r(x+k)(x-k) \neq 0$

$D_f = R - \{0, \pm k\}$

$\begin{cases} x \geq 0 \\ x \leq 1 \end{cases}$