

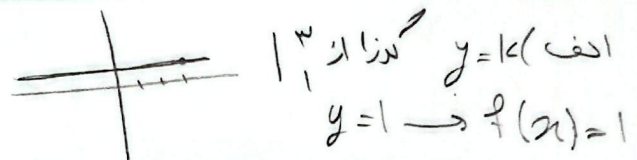
نام و نام خانوادگی: جریا قزاجی ۱۷۱۰۷۵ با تقاضای تشریحی تکلیف ۳ کلاس دهم ج

الف) $\begin{cases} y^3 - x = 2x^2 \\ y^3 - x = 2x^2 \end{cases} \xrightarrow{x=y^3} y^3 = y^3 \rightarrow y = y \checkmark$ تابع $(۲) \checkmark$

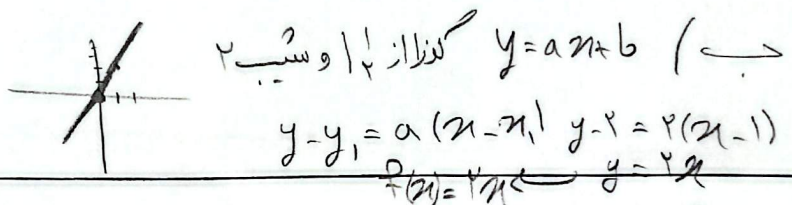
ب) $|y| + x^2 = x + 3 \xrightarrow{x=1} |y| + 1 = 4 \quad |y| = 3 \quad y = \pm 3$ تابع α

ج) $\sqrt{x-4} + |y-2| = 0 \quad \sqrt{x-4} = 0 \quad |y-2| = 0$
 $x = 4 \quad y = 2$ تابع $\checkmark$

د) $x - \cos y \xrightarrow{x=0} 0 = \cos y \rightarrow y = \frac{\pi}{2}, \frac{3\pi}{2}, \dots$ تابع α



$(۲) \checkmark$



$(۲) \checkmark$

الف) $1 + 2(0) = 1 \quad a = 1 \quad b = 0 \quad y = ax + b \rightarrow y = x$

$-\frac{a}{2} = 2 \rightarrow a = -4$

$-\frac{a}{2}$

$-\frac{b}{2a}$

ب) $y = x^2 + ax + b$

$a + 2b = -4 + 10 = 6$

$b - 4 = 1 \quad b = 5$

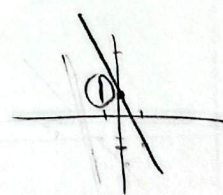
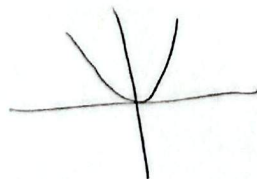
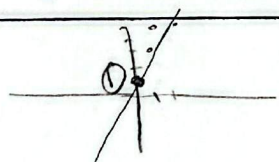
$\frac{4b - 14}{4} \leftarrow \frac{-(a^2 - 4b)}{4} \leftarrow \frac{-b}{4a}$

الف) $y = 2x + 1$

ب) $y = -3x + 1$

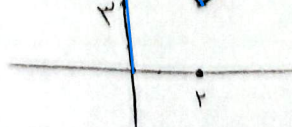
ج) $y = x^2$

د) $y = x^3$



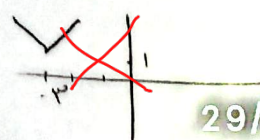
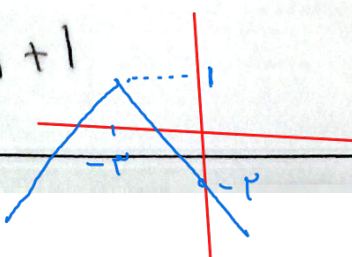
$(۲) \checkmark$

الف) $y = |x - 2| + 3$



$\checkmark, 17.5$

ب) $y = -|x + 3| + 1$



29/08/2026 17:24

الف) $y = \frac{x+4}{x^2-4x}$ $x^2-4x = x(x-4)$
 $x(x-4) \neq 0$
 $x \neq 0$
 $x \neq 4$
 $R = \{0, 4\}$

ب) $\frac{x+4}{x^2-4x}$ R
 $\Delta = 1 - 16 = -15$
 خروج بدون بقیه کفیفی

4

ج) $y = \frac{x+4}{x^2-4x+4}$ R

د) $\frac{x+4}{x^2-4x+4}$ $x^2-4x+4 = (x-2)^2$
 $R = \{-2, 0, 2\}$

$\Delta = 16 - 16 = 0$ $\rightarrow$ دایه کفیفی

الف) $y = \sqrt{4-x} + \sqrt{2x-2}$ $\rightarrow$ $4-x \geq 0$ $2x-2 \geq 0$ $2 \leq x \leq 4$
 $x \leq 4$ $x \geq 2$ $[2, 4]$

ب) $\frac{x+1}{x^2+1}$ $x^2+1 > 0$ R 1.5

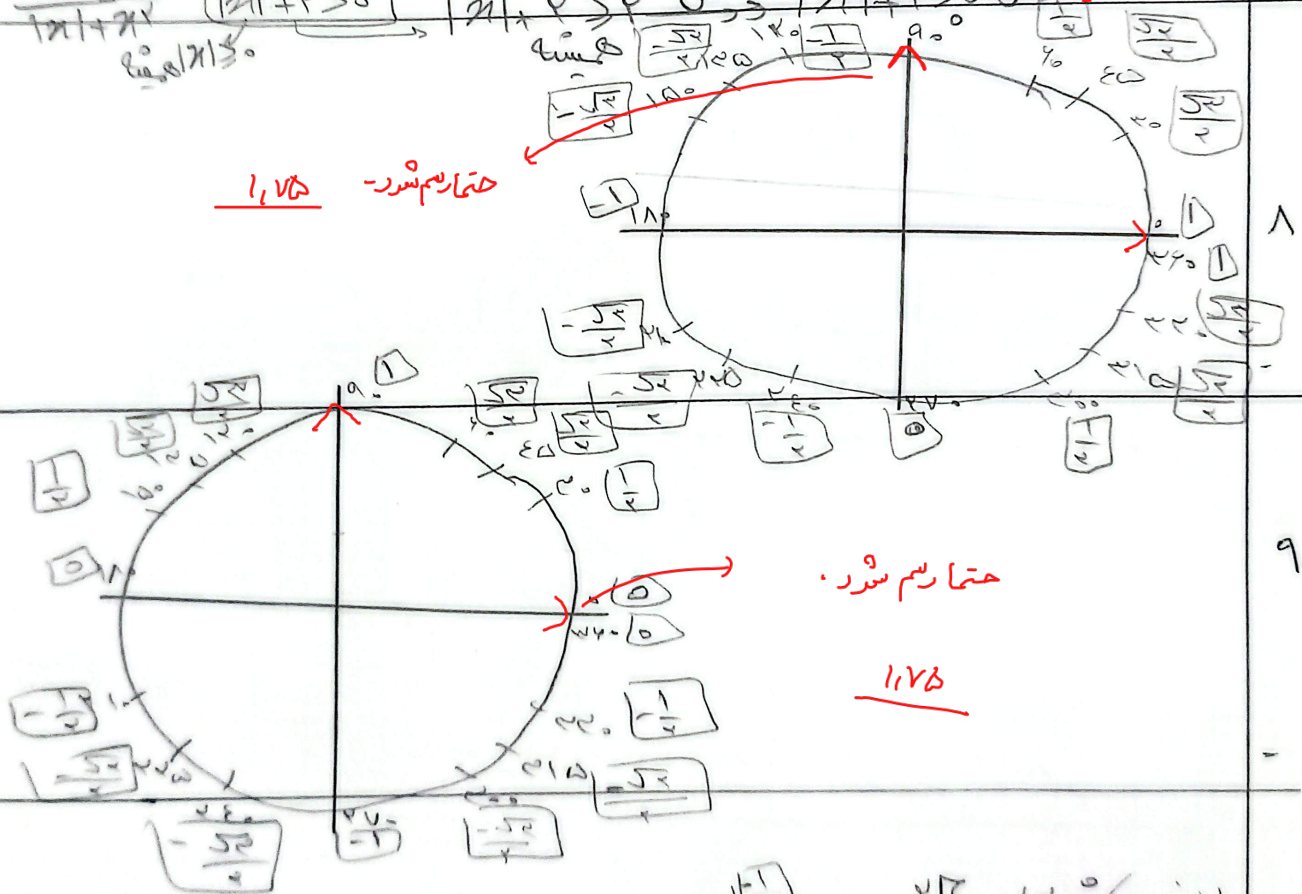
$D_f = R - \{0\}$

7

ج) $\frac{5x-4}{x-4}$ $x-4 \neq 0$ $x-4 \geq 0$ $x \geq 4$ $[4, +\infty)$
 $x \neq 4$ $x \geq 4$ $[4, +\infty)$

د) $\frac{2x+3}{|x|+x}$ $|x|+x > 0$ $|x|+x > 0$ $|x|+x > 0$ $|x|+x > 0$

1.75 $\rightarrow$ حتما رسم شود



9

$\sin \theta = \frac{1}{2}$ $\theta = 30^\circ, 150^\circ$

$\theta = 30^\circ, 150^\circ$

$\sin \theta = -\frac{\sqrt{3}}{2}$ $\theta = 210^\circ, 330^\circ$

$\frac{\sqrt{3}}{2} = \frac{1}{2}$ $\theta = 30^\circ, 150^\circ$

$\frac{1}{2} = \frac{1}{2}$ $\theta = 30^\circ, 150^\circ$

$\frac{\sqrt{3}}{2} = \frac{1}{2}$ $\theta = 30^\circ, 150^\circ$

$\frac{\sqrt{3}}{2} = 120^\circ$ (الف)

$\frac{11R}{4} = 120^\circ$ (ب)

10