پارسا ملکی **۱۸** تکلیف شماره ۷ دوازدهم ری A

۱- $y = -\frac{1}{3}x^2 + \frac{2}{5}x + 1 \Rightarrow x_S = \frac{3}{5} \Rightarrow x'_S = 4$

$\Rightarrow (x - 2\frac{3}{5})$, $y_S = \frac{-\frac{28}{75}}{-\frac{1}{3}} = \frac{28}{25}$

$\frac{13}{5}$

۲

$\Rightarrow y'_S = 3 \Rightarrow y + \frac{47}{25}$

$x_2 = 7$ ✓

$\Rightarrow y' = -\frac{1}{3}x^2 + \frac{8}{3}x - \frac{7}{3} \Rightarrow x_1 = 1$

۲- $(1,4) \Rightarrow f(x) = (x-3)(x+1) \Rightarrow 1-2f(3x+2)$

$= 1 + 2(3x-1)(3x+3) = 18x^2 + 12x - 5 \Rightarrow x = -\frac{1}{3}$

۲

$y = 7$

$\Rightarrow A = (-\frac{1}{3}, 7) \Rightarrow -\frac{1}{3}x + 7$

$l = \frac{7}{3}$ ✓

۳- $\sqrt{2(x+1)} \Rightarrow \sqrt{2x+2} + 2 \Rightarrow \sqrt{2x+2} + 2$

$= \frac{7}{2} \Rightarrow \sqrt{2x+2} = \frac{3}{2} \Rightarrow 2x+2 = \frac{9}{4}$

$\Rightarrow x = \frac{1}{8}$ ✓

۲

$D_f = (a, 2] \Rightarrow D_g = [-1, b) \Rightarrow D_{f(x-1)} = (a+1, 5]$ -٤

$\Rightarrow D_{g(x+1)} = [-2, b-1) \Rightarrow D_{g(x+1)} \cap D_{f(x-1)}$

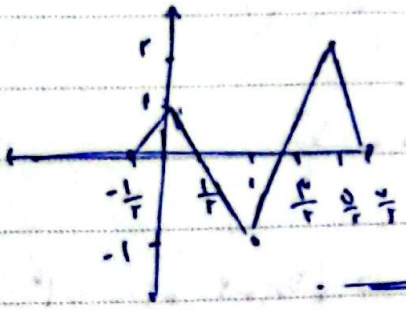
$= (-2, 5) \Rightarrow a+1 = -2 \Rightarrow a = -3,\ b-1 = 5 \Rightarrow b = 6$ ✓

$-3-6 = -9$ ✓ (٢)

$y_1 = f\left(\frac{x}{2}+1\right) = f\left(\frac{1}{2}(x+2)\right) \xrightarrow{x-2} f\left(\frac{x}{2}\right)$ -٥

$\frac{x}{2}, f(x) \to \left[-\frac{1}{2}, \frac{7}{2}\right]$ ✓

$D_{y_1} \in \left[-\frac{1}{2}, \frac{7}{2}\right] \Rightarrow R_{y_2} = [0, \sqrt{5}]$ (٢)



$y = \frac{x}{a}[ax] \longrightarrow (-b, -c] \longrightarrow -dx$ -٩

$a = -2 \to -\frac{x}{2}[-2x] \quad (-c, 0] \longrightarrow 0$

$\Rightarrow b = 1,\ c = \frac{1}{2} \quad \Rightarrow d = 1$

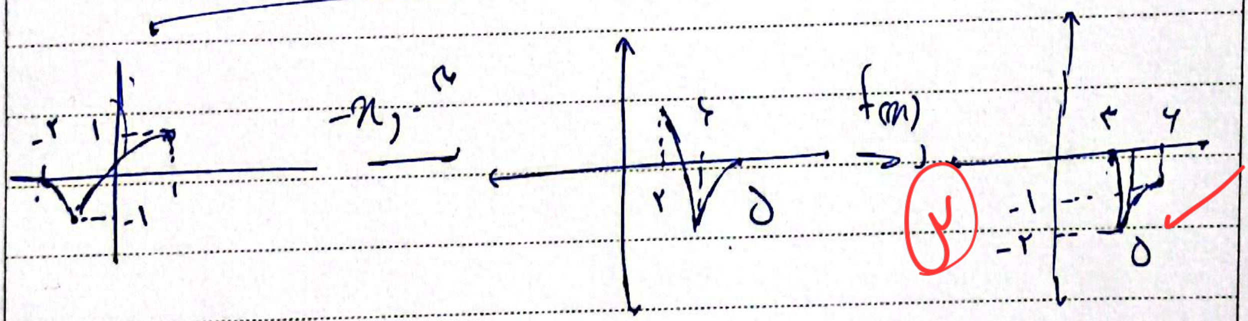
$\Rightarrow 1 + 2 = 3$ ✓ $\quad (0, c] \longrightarrow \frac{1}{2}dx$ (٣)

$(c, b] \longrightarrow dx$

$f(x) = x + ۲ \Rightarrow ۱ - f \Rightarrow -f + ۴ \Rightarrow -x = ۱ - ۴\, y\, \frac{۲-x}{۲}$ — ۷

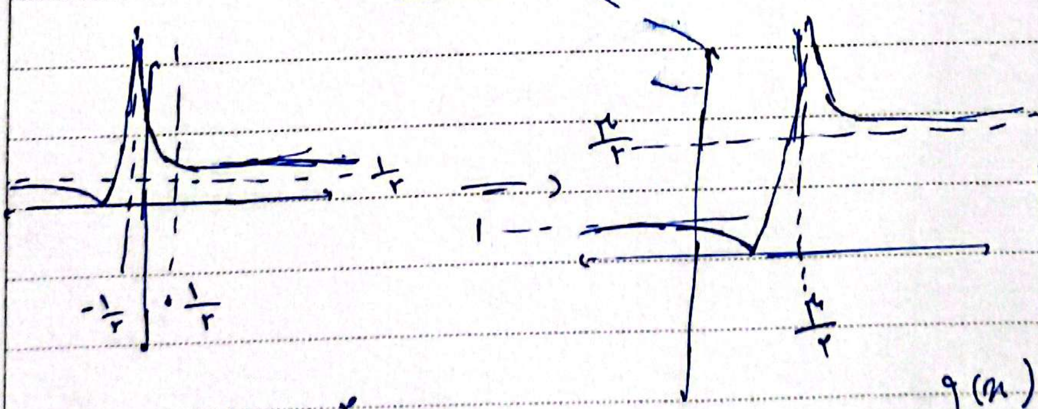
$y(x) \Rightarrow \left(۴ - y\frac{۱۴}{۲}\right) + \left(۴ - y\frac{۱۶}{۲}\right) = -۱ - ۳ = -۴$ ✓ (۲)

$۲ - y(۳-x) \Rightarrow -۲y\, x - ۱ = f(۳-x)$ — ۸



(۲) ✓

— ۹



$\left|\frac{۳x-۲}{۲x-۳}\right|$

$g(x)$ (۱)

$\Rightarrow x = \left|\frac{۳x - ۲}{۲x - ۳}\right| < ۰ \Rightarrow$

$\Rightarrow x < ۰ ,\ x \in (-\infty, ۰)$

$x \in (-\infty, -\sqrt{۲}]$

ط- $g(x)\sqrt{f(x)(۲۸-f(x))}$ if $f(x)=0 \Rightarrow x=0$

① if $f(x)+۲۸=0 \Rightarrow x=۴$

$\Rightarrow$ ، $\overset{۳}{\underline{\quad - \;\; 0 \;\; + \;\; 0 \;\; - \quad}}$ $\Rightarrow x \geq 0$ ، ۴

$x \in [0, ۸/۳] \rightarrow$ عدد صحیح ۳ $0 \leq x \leq ۴$