۱۱٫۲۵

حامد عمران

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$f(x)=\sqrt{1-x^2}\geq 0$ $\quad g=\{(-1,1),(0,4),(2,5),(1,2)\}$

$2g-3f=?$ $\quad -1\leq x\leq 1$

$D_f\cap D_g=\{-1,0,1\}$

$2g=\{(-1,2),(0,8),(1,4)\}$

$3f=\{(-1,0),(0,3),(1,0)\}$

$2g-3f=\{(-1,2),(0,5),(1,4)\}$

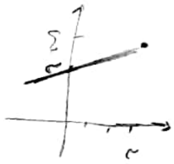
۲+۴+۵=۱۱

-۲ ۰

$f(x)=2x-1$ $\quad D_{f(x)}=[3,+\infty)$ $\quad g(x)=\frac{1}{3}x+3$ $\quad D_g=(-\infty,3]$

$R_{g(x)}\cap R_{f(x)}=?\ \varnothing$

$\hookrightarrow R_f=[5,+\infty)$



$\hookrightarrow R_g=(-\infty,4]$

$R=\mathbb{R}-(4,5)$

$y=-\frac{x^2}{2}+x+2$ $\quad R:(a,b)>\frac{3}{2}$ $\quad \max:\sqrt{b-a}$

$-1 \quad 3 \quad -3$

$+ \quad - \quad -$

$-\frac{x^2}{2}+x+2>\frac{3}{2}\to -\frac{x^2}{2}+x+\frac{1}{2}>0\xrightarrow{\times(-2)} x^2-2x-[illegible]>0 \quad (x-3)(x+[illegible])>0$

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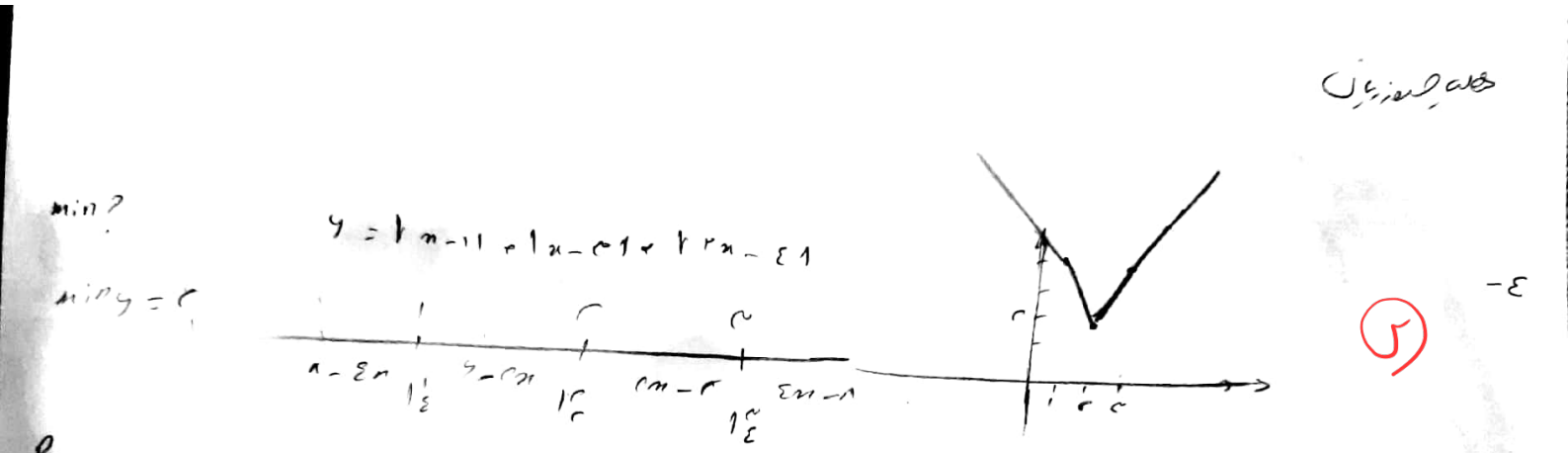
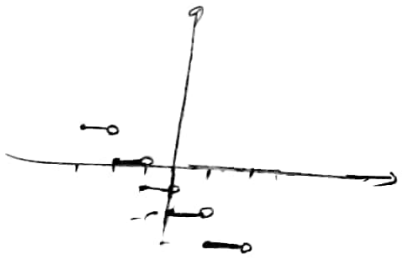
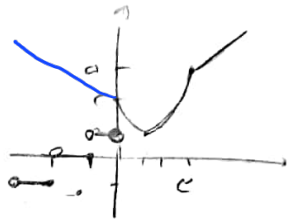
$\sqrt{b-a}=2$

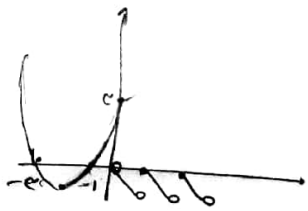
Scanned by CamScanner





$$R = (-\infty, 1]$$





معین اسفندیاری ۹-

$y = a+1 - \sqrt{2x+2}$ $D = [b, +\infty)$

$2x+2 \geq 0 \rightarrow x \geq -\frac{2}{2}$ $R = (-\infty, a]$ $ab = ?$ $a \cdot b = -\frac{2}{2} \times 4 = -4$ (۳)

$y = a+1 \rightarrow a = 4$

۱۰-

$f(x) = 3\sqrt{x+1} + 4\sqrt{1-x}$ $f(x) + g(x) = 3\sqrt{2 + 2\sqrt{1-x^2}}$ (۰/۵)

$D_f = D_g$ $-1 \leq x \leq 1$ $R = \frac{f(x)}{4} - \frac{g(x)}{2}$ $(1-x)(1+x)$

$\left((\sqrt{1-x}) + \sqrt{1+x}\right)^2$

$f(x) + g(x) = 3\sqrt{1-x} + 2\sqrt{1+x}$ $\left|(\sqrt{1-x} + \sqrt{1+x}\right| \overset{-1 \leq x \leq 1}{=} \sqrt{1-x} + \sqrt{1+x}$

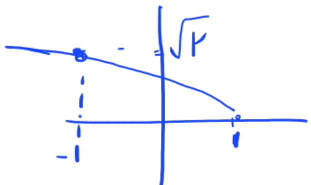
$3\sqrt{x+1} + 4\sqrt{1-x} + g(x) = 3\sqrt{1-x} + 3\sqrt{1+x}$

$g(x) = \sqrt{1-x} - \sqrt{1+x}$ $\rightarrow R = \frac{3\sqrt{x+1} + 4\sqrt{1-x}}{4} = \frac{\sqrt{x+1} + 2\sqrt{1-x}}{2} - \frac{\sqrt{1-x} + \sqrt{1+x}}{2}$

$\frac{\sqrt{1+x}}{2} = \frac{\sqrt{1+x} + \sqrt{1-x}}{2}$

$f(x) + g(x) = 3\sqrt{2 + 2\sqrt{1-x^2}} \xrightarrow{\text{توان ۲}} 9\left(\sqrt{1-x} + \sqrt{1+x}\right)^2 \xrightarrow{\text{جذر می‌گیریم}} 3\left(\sqrt{1-x} + \sqrt{1+x}\right)$

$\rightarrow g(x) = \sqrt{1+x} - \sqrt{1-x}$ $\frac{f(x)}{4} - \frac{g(x)}{2} = \sqrt{1-x}$



$R\ [0, \sqrt{2}]$