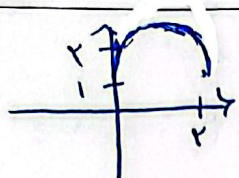
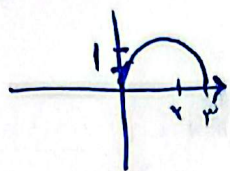
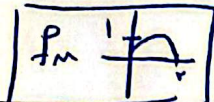
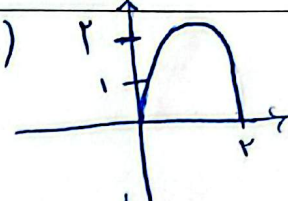
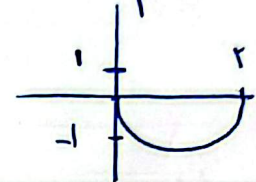


الف) $f(m) + 2$  ج) $f(m-1)$  	ب) $2f(m)$  د) $-f(m)$ 	1		
الف) $m^2 - 6m + 9 > 0$ $(m-3)(m-3)$ $m \quad 2 \quad 3$ $y \quad + \quad \phi - \phi +$ $(-\infty, 3) \cup (3, +\infty)$	ب) $m^2 - 4m + 4 < 0$ $(m-2)(m-2)$ $m \quad 1 \quad 2$ $y \quad + \quad \phi - \phi +$ $(1, 2)$	ج) $m^2 + 4m + 4 \geq 0$ $(m+2)(m+2)$ $m \quad -2 \quad -2$ $y \quad + \quad \phi - \phi +$ $(-\infty, -2] \cup [-2, +\infty)$	د) $m^2 - 7m + 6 < 0$ $(m-1)(m-6)$ $m \quad 1 \quad 6$ $y \quad + \quad \phi - \phi +$ $[1, 6]$	2
الف) $\frac{m^2 - 3m + 2}{m - 4} < 0$ $(m-1)(m-2)$ $m \quad 1 \quad 2 \quad 4$ $y \quad - \quad \phi + \phi - \phi +$ $(-\infty, 1) \cup (2, 4)$	ب) $\frac{m^2 - 1}{m^2 - 4m + 4} \geq 0$ $(m-1)(m+1)$ $m \quad -1 \quad 1 \quad 2$ $y \quad + \quad \phi - \phi - \phi +$ $(-\infty, +1] \cup (2, +\infty)$	3		
الف) $\sqrt{\frac{m^3 - 1}{m^3 - m}}$ $m^3 - 1 \geq 0 \Rightarrow m \geq 1$ $m^3 - m \geq 0 \Rightarrow m(m^2 - 1) \geq 0$ $m \quad -1 \quad 0 \quad 1$ $y \quad + \quad \phi - \phi + \phi +$ $(-\infty, -1) \cup (0, +1) \cup (1, +\infty)$	ب) $\sqrt{\frac{m^2 - 16}{m^2 - 6m + 9}} \leq m^2 - 4 \pm 4$ $(m-4)(m+4)$ $m \quad -4 \quad 1 \quad 4$ $y \quad + \quad \phi - \phi + \phi +$ $(-\infty, -4] \cup (1, 4) \cup (4, +\infty)$	4		
الف) $\sqrt{4 - \sqrt{2 - m}}$ $4 - \sqrt{2 - m} \geq 0 \Rightarrow \sqrt{2 - m} \leq 4 \Rightarrow 2 - m \leq 16 \Rightarrow m \geq -14$ $\sqrt{2 - m} \geq 0 \Rightarrow 2 - m \geq 0 \Rightarrow m \leq 2$ $-14 \leq m \leq 2$	ب) $y = \sqrt{2 - \sqrt{m - 2}}$ $2 - \sqrt{m - 2} \geq 0 \Rightarrow \sqrt{m - 2} \leq 2 \Rightarrow m - 2 \leq 4 \Rightarrow m \leq 6$ $\sqrt{m - 2} \geq 0 \Rightarrow m - 2 \geq 0 \Rightarrow m \geq 2$ $2 \leq m \leq 6$	5		

$$\text{ا) } y = \sqrt{\epsilon - r m^2}$$

$$\epsilon - r m^2 \geq 0$$

$$r m^2 \leq \epsilon$$

$$m^2 \leq \frac{\epsilon}{r} \rightarrow m \leq \sqrt{\frac{\epsilon}{r}}$$

$$\text{ب) } y = \sqrt{r|m| - 9}$$

$$r|m| - 9 \geq 0$$

$$r|m| \geq 9$$

$$|m| \geq \frac{9}{r} \rightarrow m \geq \frac{9}{r} \text{ or } m \leq -\frac{9}{r}$$

6

$$\text{ا) } y = \sqrt{\frac{|m|+1}{|m|-3}}$$

$$|m| - 3 > 0$$

$$|m| > 3 \rightarrow m > 3 \text{ or } m < -3$$

$$\text{ب) } y = \sqrt{\frac{\sqrt{m}+1}{\sqrt{m}-3}}$$

$$\sqrt{m} - 3 > 0$$

$$\sqrt{m} > 3$$

$$m > 9$$

7

$$\text{ا) } y = \frac{\sin m}{r \cos m - 1}$$

$$r \cos m - 1 \neq 0$$

$$r \cos m \neq 1$$

$$\cos m \neq \frac{1}{r}$$

$$\text{ب) } y = \frac{\cos m + 1}{r \sin m + 1}$$

$$r \sin m + 1 \neq 0$$

$$r \sin m \neq -1$$

$$\sin m \neq -\frac{1}{r}$$

Costan

$$e) y = \frac{\tan m + r}{\cot m - 1}$$

$$\sin \phi = \frac{\tan \phi}{\sec \phi} \rightarrow \tan \phi = \frac{\sin \phi}{\cos \phi}$$

$$\cot \phi = \frac{\cos \phi}{\sin \phi}$$

$$\cos \phi \neq 0$$

$$\sin \phi \neq 0$$

$$\sin \phi \neq \frac{r}{\epsilon}$$

$$\sin \phi \neq \frac{r}{\epsilon}$$

$$\sin \phi \neq \frac{r}{\epsilon}$$

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$$\sin \phi \neq \frac{r}{\epsilon}$$

9

$$y = \frac{1}{\sqrt{r|m-1| - \frac{1}{r}}}$$

$$m-1 > \frac{1}{r} \rightarrow m > 1 + \frac{1}{r}$$

$$m-1 < -\frac{1}{r} \rightarrow m < 1 - \frac{1}{r}$$

$$r|m-1| - \frac{1}{r} > 0 \rightarrow r|m-1| > \frac{1}{r} \rightarrow |m-1| > \frac{1}{r^2} \rightarrow m > 1 + \frac{1}{r^2} \text{ or } m < 1 - \frac{1}{r^2}$$

$$\text{ا) } y = \sqrt{\epsilon - r|m|}$$

$$\epsilon - r|m| \geq 0$$

$$r|m| \leq \epsilon$$

$$|m| \leq \frac{\epsilon}{r}$$

$$-\frac{\epsilon}{r} \leq m \leq \frac{\epsilon}{r}$$

$$\text{ب) } y = \sqrt{\frac{|m|}{|m|}}$$

$$R - \{0\}$$

$$m > 0 \text{ or } m < 0$$

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