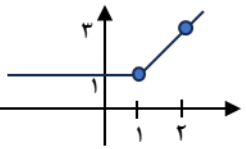
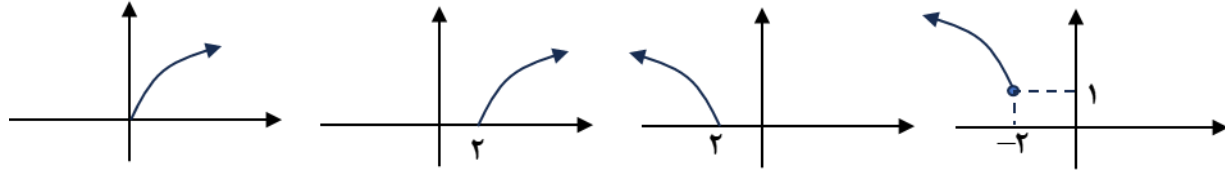
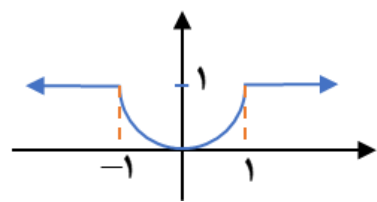


ردیف	پاسخ	نمره								
۱- (الف)	$\left. \begin{aligned} 2x - 4 = 2 &\Rightarrow x = 3 \\ -2(3) + 1 &= -5 \end{aligned} \right\} \Rightarrow A'(3, -5)$  <table border="1" data-bbox="430 430 673 514"> <tr> <td>x</td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td>y</td> <td>1</td> <td>1</td> <td>3</td> </tr> </table> <p style="text-align: center;"><math>[1, +\infty)</math></p> <p>(ب)</p> <p>(پ)</p> <p>(ت)</p>	x	0	1	2	y	1	1	3	۲
x	0	1	2							
y	1	1	3							
۲- (الف)	$x + 1 = 0 \Rightarrow x = -1 \Rightarrow p(-1) = 6$ $\Rightarrow -1 - m + 3 = 6 \Rightarrow m = -4$ $y = -\frac{2}{3}\sin x + \frac{5}{3}$ $\min = -\left -\frac{2}{3}\right  + \frac{5}{3} = 1$  <p><math>g(x) = f(-x-2) + 1</math>      <math>D_g = (-\infty, -2]</math></p> <p><math>g(x) = \sqrt{-x-2} + 1</math>      <math>R_g = [1, +\infty)</math></p>	۲								
۳- (الف)	$x + 2 > 0 \Rightarrow x > -2$ $6 \times 2x > 0 \Rightarrow x < 3$ $x + 2 \leq 6 - 2x \Rightarrow -4 \leq -3x \Rightarrow x \leq \frac{4}{3}$ $\Rightarrow x \in (-2, \frac{4}{3}]$	۲								
۴- (الف)	 $f(x) = \begin{cases} x^2 & -1 \leq x \leq 1 \\ x < -1 \text{ or } 1 < x \end{cases}$ <p><math>[-\infty, 0] \rightarrow</math> نزولی</p> <p><math>[0, +\infty) \rightarrow</math> صعودی</p>	۲								
۵- (الف)	$x + 3 = 0 \Rightarrow x = -3$ $-27 + 9a - 3b + 2 = -40$ $\Rightarrow 9a - 3b = -15$ $x - 2 = 0 \Rightarrow x = 2 \Rightarrow 8 + 4a + 2b + 2 = 0$ $\Rightarrow 4a + 2b = -10$	۲								

$$\begin{cases} 18a - 6b = -3 \\ 12a + 6a = -3 \end{cases} \Rightarrow 3 \cdot a = -6 \Rightarrow \boxed{a = -2}$$

$$\Rightarrow \boxed{b = -1}$$

$$1 \quad x^5 + 1 = (x+1)(x^4 - x^3 + x^2 - x + 1)$$

-6

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-7

$$1/5 \quad 2 - (2x - 4) \leq 2 - 4$$

$$\Rightarrow -(2x - 4) \leq -4$$

$$\Rightarrow -2x + 4 \leq -4 \Rightarrow -2x \leq -8$$

$$\Rightarrow \boxed{x \geq 4}$$

-8

$$2 \quad y = a \sin bx + c$$

$$a = \frac{2 - (-1)}{2} = -\frac{3}{2}$$

$$c = \frac{2 - 1}{2} = \frac{1}{2} \quad \frac{2\pi}{b} = 4\pi$$

$$\Rightarrow b = \frac{1}{2}$$

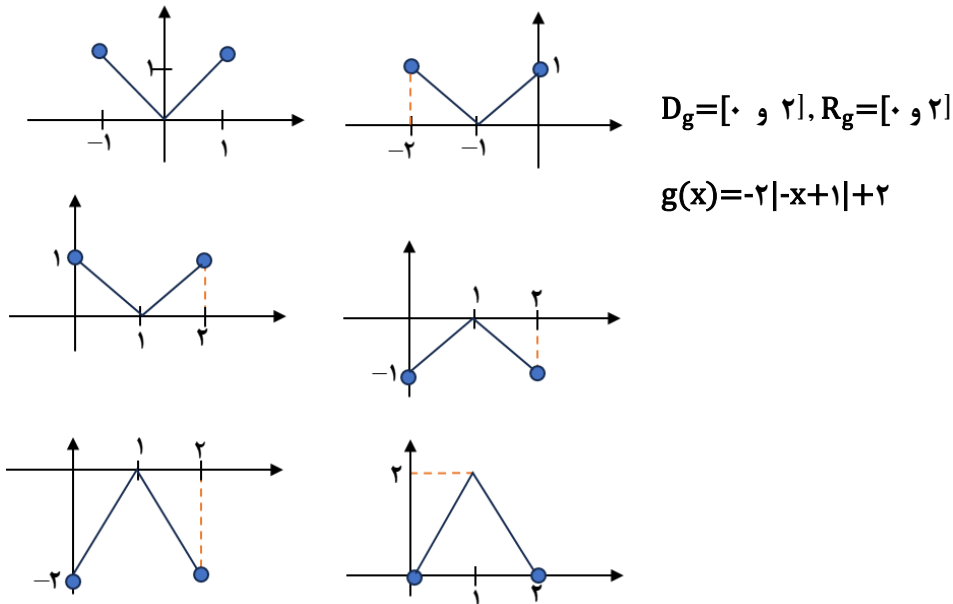
$$y = -\frac{3}{2} \sin \frac{x}{2} + \frac{1}{2}$$

-9

پس:

$$2/5 \quad g(x) = -2f(-x+1) + 2$$

-10



$$2 \quad 1 < x < 2 \Rightarrow 0 < x - 1 < 1 \Rightarrow D_g = (0, 1)$$

$$4 \leq 2f \Rightarrow 2 \leq f \Rightarrow R_f = [2, +\infty)$$

$$0 < 2x < 1 \Rightarrow 0 < x < \frac{1}{2} \Rightarrow D_g = (0, \frac{1}{2})$$

$$2 \leq f \Rightarrow -2 \geq -2f \Rightarrow -2 + 2 \geq 2 - 2f$$

$$\Rightarrow 1 \geq 2 - 2f \Rightarrow R_g = (-\infty, 1]$$

-11

20 جمع بارم