

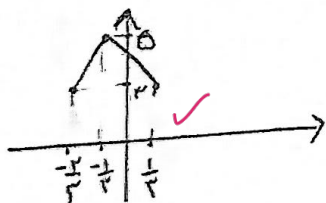
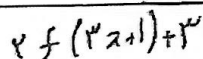
Q-1

$$\Rightarrow \underline{D_{f'} = [F \quad \checkmark]}$$

② - 5

② - 4

$$\omega_2 \leq \omega_1$$



$$(-1, 0) \Rightarrow |x_1| = -1 \Rightarrow x' = -\frac{1}{x}$$

$$y' = Y(0) + \Gamma^u = y' = \Gamma^u$$

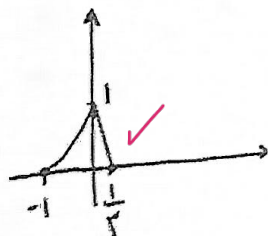
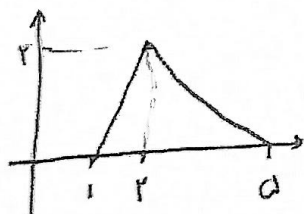
$$(0,1) \Rightarrow \psi'_{\frac{1}{2}} = 0 \Rightarrow \psi' = -\frac{1}{\psi}$$

$$y' = y(1) + 1 \Rightarrow y' = \frac{1}{2}$$

$$(Y_{20}) \Rightarrow P'_{20} = Y \quad \sigma = \frac{1}{\mu}$$

$$y'(r)_{r=0} = \gamma_2 \kappa$$

$$\frac{1}{r} f(r-r_0)$$



$$(1,0) \Rightarrow 1 - r = 1 \Rightarrow r = 0$$

$$\frac{1}{Y}(\cdot) \Rightarrow Y = 0$$

$$(r, r) \Rightarrow r - r = 0 \Rightarrow x = 0$$

$$\Rightarrow \frac{1}{y}(x) \Rightarrow x$$

$$(d, 0) \Rightarrow 1 - 2\lambda = d \Rightarrow \lambda = -1$$

$$\Rightarrow \frac{1}{r}(0) \Rightarrow y_{c0}$$

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

وقت (۲،۳) به سوال!

۶- چون انتقال می دهیم ضرب ۲ تغییر می نماند راحت درسته!

$$y' = a(x-h)^p + k$$

$$y' = -\frac{1}{3}(x-3)^3 + 4$$

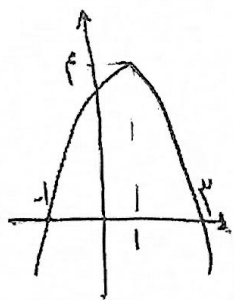
$$\frac{1}{3}(x-3)^3 = 4$$

$$(x-3)^3 = 12 \Rightarrow x-3 = \pm\sqrt[3]{12} \quad x = 3 \pm \sqrt[3]{12}$$

$$x_2 - x_1 = (3 + \sqrt[3]{12}) - (3 - \sqrt[3]{12}) = 2\sqrt[3]{12}$$

صغیانه

۲-۷



$$1-2f(x_2+x_1)$$

$$(-1, 0) \Rightarrow x_2 + x_1 - 1 = x = -1 \quad 1-2(0) \Rightarrow 1 = y$$

$$(2, 0) \Rightarrow x_2 + x_1 = 3 \Rightarrow x = \frac{1}{3} \quad 1-2(0) \Rightarrow y = 1$$

$$(1, 4) \Rightarrow x_2 + x_1 = 1 \Rightarrow x = \frac{1}{2} \quad 1-2(4) \Rightarrow y = -7$$

$$(\alpha, \beta) \Rightarrow (-\frac{1}{3}, -7)$$

$$\alpha\beta = -\frac{1}{3} \times -7 = \frac{7}{3}$$

$$D_f = (a, 4)$$

$$a < x-1 < 4 \Rightarrow a+1 < x < 5$$

$$\Rightarrow (-2, 5)$$

$$D_g = [-1, b)$$

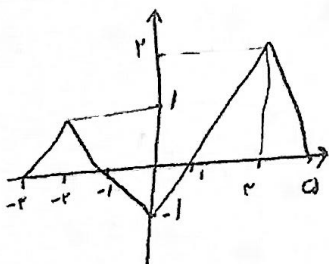
$$-1 < x+1 < b \Rightarrow -2 < x < b-1$$

$$\Rightarrow a+1 = -2 \quad a = -3$$

$$b-1 = 5 \quad b = 6$$

$$a-b = -3-6 = -9$$

۲-۱



$$f\left(\frac{a}{2}+1\right)$$

$$(-3, 0) \Rightarrow \frac{-3}{2}+1 = -\frac{1}{2}$$

$$(1, 0) \Rightarrow \frac{1}{2}+1 = \frac{3}{2}$$

$$(-2, 1) \Rightarrow \frac{-2}{2}+1 = 0$$

$$(2, 2) \Rightarrow \frac{2}{2}+1 = 2$$

$$(1, 0) \Rightarrow \frac{1}{2}+1 = \frac{3}{2}$$

$$(5, 0) \Rightarrow \frac{5}{2}+1 = \frac{7}{2}$$

$$(0, -1) \Rightarrow \frac{0}{2}+1 = 1$$

$$D_f(x) = \left[-\frac{1}{2}, \frac{7}{2}\right]$$

$$R_f(x) = [-1, 2]$$

زیرا تغییر در دامنه تابع ایجاد نشده است

زیرا تغییر در دامنه تابع ایجاد شده است: $D_g = \left[-\frac{1}{2}, \frac{7}{2}\right]$

$$|2f(0)-3| = 0$$

$$R_g = -1 < f(x) < 2$$

$$-2 < 2f(x) < 4$$

$$-5 < 2f(x)-3 < 1 \Rightarrow 0 < |2f(x)-3| < 5$$

$$R_g = [0, 5]$$

$$0 < \sqrt{|2f(x)-3|} < \sqrt{5}$$

$$f(x) = \left| \frac{x-1}{x-2} \right|$$

$$g(x) = \left| \frac{(x-2)+1}{x(x-2)+1} \right| + 1 \Rightarrow \left| \frac{x-1}{x-2} \right| + 1 \Rightarrow x + \left| \frac{x-1}{x-2} \right| + 1$$

(2) - 1.

4/6

$$\frac{x-2}{x-2} < \left| x - \frac{x-1}{x-2} + 1 \right| \Rightarrow x + \frac{x-1}{x-2} + 1$$

$$\frac{x^2 - x - x + 1 + x^2 - 2x + 2}{x-2} = \frac{x^2 - 2x + 1}{x-2} = \frac{x^2 - 2x + 1}{x-2} < \frac{-1}{\sqrt{x}} + \frac{1}{-1} + \frac{1}{\alpha} \Rightarrow (-\infty, \sqrt{x})$$

→

$$\frac{x^2 - 2x + 1}{x-2}$$

~~1/2~~

$$\frac{-1}{\sqrt{x}} + \frac{1}{-1} + \frac{1}{\alpha}$$

رأس: (h, k) $\xrightarrow{\text{معادلة خط}}$ $y = a(n-h)^2 + k = -\frac{1}{3}n^2 + \frac{2}{3}n + 1 \rightarrow a = -\frac{1}{3}$

-9

رأس: $(4, 3) \rightarrow y = -\frac{1}{3}(n-4)^2 + 3 \xrightarrow{y=0} -\frac{1}{3}(n-4)^2 = -3 \rightarrow \begin{cases} n=7 \\ n=1 \end{cases}$