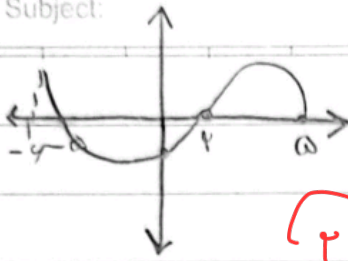


Subject:

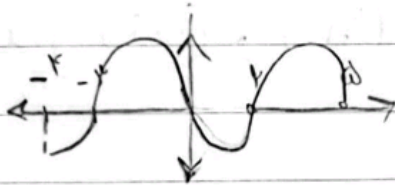


$$g = \sqrt{x f(x)} \Rightarrow x f(x) \geq 0$$

$$[2, 5] \cup [-5, 0] = Df$$

م. زنون

✓



$$\sqrt{\frac{-x}{f(x)}} \Rightarrow \frac{-x}{f(x)} \geq 0$$

م. زنون
مختلف التوازيات

$$Df = [0, 2] \cup [-3, 0]$$

✓

$$f(x) - x f(x) = x - x^2 + x$$

$$-f(x) = x \Rightarrow f(x) = -x$$

$$f(-x) - x(-x) = x - (-x^2) + x$$

$$f(-x) + x = x + x^2 + x$$

$$f(-x) = 1$$

$$\begin{cases} x - \sqrt{x^2 + 4} & x > 3 \\ 2x + 3 & x \leq 3 \end{cases}$$

$$f(f(5)) + f(f(1)) = 4 + 9 = 13$$

✓

$$f(0) - f(1) = 1 \Rightarrow f(1) = -4$$

$$f(0) = 2 \quad f(1) = a - b + 1$$

$$a - b + 2 = -4 \Rightarrow a - b = -6$$

$$f(x) = x^2 - 3x + 1$$

$$x f(x) + f(-1) = 1$$

$$f(x)$$

✓

Subject:

Date:

الناسخ

$$f(x) = \begin{cases} 3x+1 & x \geq 1 \\ x^2 & x < 1 \end{cases} \quad \frac{3f(x) - 2f(-1)}{f(1)} = \frac{31}{1} \quad - \checkmark$$

2 ✓

$$F = \{ (1, 9), (2, 4), (3, 1), (4, 0) \} \quad \text{--- } \checkmark$$

$$\textcircled{9} \quad \frac{f(f(f)) - f(f(1))}{f(1) - 1} = \frac{9 - 4}{9 - 1} = \frac{5}{8} \Rightarrow \bullet \quad \textcircled{2} \checkmark$$

$$\begin{aligned} & \text{بما } f(x) = \frac{x^2 + 4x + 9}{x^2 + 4x + 9} \\ & \frac{(\sqrt{13}-1)^2 + 4(\sqrt{13}-1) + 9}{(\sqrt{13}-1)^2 + 4(\sqrt{13}-1) + 9} = \frac{(13 - 2\sqrt{13} + 1) + 4\sqrt{13} - 4 + 9}{(13 - 2\sqrt{13} + 1) + 4\sqrt{13} - 4 + 9} = \frac{14 + 2\sqrt{13}}{14 + 2\sqrt{13}} = 1 \end{aligned}$$

2 ✓

$$\begin{aligned} & \frac{(f(\sqrt{x}))^2 - f(x)}{x^2 + \frac{1}{x^2}} \Rightarrow \left(x + \frac{1}{x}\right)^2 - \left(x^2 + \frac{1}{x^2}\right) = x^2 + 2 + \frac{1}{x^2} - x^2 - \frac{1}{x^2} = 2 \end{aligned}$$

2 ✓