

الف: $Y = \sqrt[3]{2x^2 + 2x - 1}$



✓

ب: $x = \frac{\pi}{p}$

$\frac{\pi}{p} \cos y = 0$

$y = \frac{\pi}{p}, \frac{3\pi}{p}$

X تابع

ج: $x + y = \sqrt{2xy}$

$x^2 + y^2 - 2xy = 0$

✗

$x^2 + y^2 + 2xy = 2xy$

$(x - y)^2 = 0$

$x = y$

✓

د: $y^2(x - y) + 2(x - y) = 0$

$(x - y)(y^2 + 2) = 0$

$x - y = 0$

$x = y$

✗

✓

الف: $x^2 = 2y - |y|$

ب:

$x = 0$

$y = 1, 1$

$y = 1, 2$

$y = 1, 3$

X تابع

if $y = + \rightarrow x^2 = y$



✓ تابع

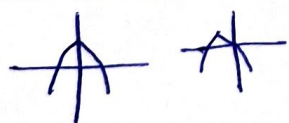
if $y = - \rightarrow x^2 = 3y$

$x = 3 \rightarrow 2x^2 - b \rightarrow 18 - b$

$a + 2x \rightarrow a + 6$

$a + 6 = 18 - b$

$a + b = 12$



a, b

$a - ab - a^2 = 0$

$a - b^2 - b^2 = 0$

$a = 2b^2$

$b = 0$

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

$b = -1$

$2b^2 - 2b^2 - 4b^2 = 0$

$-4b^2(4b^2 + 2b - 2) = 0$

$-b^2(2b + 2)(2b - 1) = 0$

$a = 2b^2 = 2$

$a + b = -1 + 2 = 1$

$a = 0$

$y = bx + c$

$0 = 2b + c$

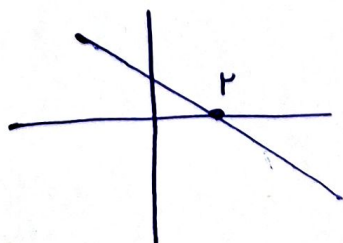
$c = -2b$

$3a + c - 3|b|$

$c - 3|b|$

$c + 3b$

$3b - 2b = b$



$$\frac{x^2 + y}{x + b} + a \geq 0$$

$$\frac{x^2 + y + a x + a b}{x + b} \geq 0$$

$$\frac{x(x + a) + y + a b}{x + b} \geq 0$$

$$D_f = (y, +\infty)$$

↓
نقطة خارج

$$y + b = 0$$

$$b = -y$$

$$\text{الف: } x^3 - x \geq 0 \quad x(x^2 - 1) \geq 0 \quad x(x+1)(x-1) \geq 0 \quad \frac{-1}{-\phi + \phi} - \frac{1}{-\phi + \phi}$$

$$D_f = [-1, 0] \cup [1, +\infty)$$

$$\therefore |x| - 1 > 0 \quad |x| > 1 \quad x > 1 \quad x < -1$$

$$D_f = (-\infty, -1) \cup (1, +\infty)$$

$$\text{الف: } |x| - [x] \neq 0 \quad |x| \neq [x] \quad D_f = \mathbb{R} - (z^+ \cup \{0\})$$

$$\therefore x \geq 0$$

$$y \geq 0$$

$$D_f = [0, 1]$$

$$\left[x - \frac{1}{x} \right] + \left[x + \frac{x}{x} \right] > 0 + 1 \quad x \left[x + \frac{x}{x} \right] > 1$$

$$\left[x + \frac{x}{x} \right] > 1 \quad x + \frac{x}{x} \geq 1 \quad x \geq \frac{1}{x} \quad x \geq \frac{1}{x}$$

$$D_f = \left[\frac{1}{x}, +\infty \right)$$

$$x - a > 0$$

$$1 - \log x - a \geq 0$$

$$1 \geq \log x - a$$

$$1 > x - a$$

$$0 < x - a < 1$$

$$y - a = 0 \quad y = a$$

$$y - a = 1$$

$$y - y = 1$$

$$c - b = \infty$$