

$x=1 \rightarrow f(x) + f(x) = x + f(x) \rightarrow f(x) = x$
 $\frac{f(2x+1)}{2x+1} + \frac{f(x+1)}{x+1} = 2x+1 = 2x+1 + x+1$
 $\left. \begin{aligned} f(x) &= x \\ f(2x+1) &= 2x+1 \\ f(x+1) &= x+1 \end{aligned} \right\} \rightarrow f(x) = x$

$\sqrt{x-x^2} \quad x_{\max} = -\frac{b}{2a} = -\frac{1}{-2} = \frac{1}{2} \rightarrow y_{\max} = \frac{1}{2} - \frac{1}{4} = \frac{1}{4}$
 $R_f = (-\infty, \frac{1}{4}] \rightarrow [0, \frac{1}{4}]$

$f(x) = \frac{x(x-1)(x+1)}{x+1} = x^2 - x \quad x = -1 \rightarrow y = 1 + 1 = 2$
 $x = \frac{1}{2} \rightarrow y = -1 \quad [-1, +\infty) - \{1\}$
 $x^2 - x = 1 \rightarrow x^2 - x - 1 = 0 \rightarrow (x-1)(x+1) = 0 \rightarrow x = 1 = b$
 $\rightarrow x = -1 = a$
 $c = 1 \rightarrow f(\frac{1}{2}) = f(1) = \frac{1}{4} = -1$
 $f(-1) = (-1)^2 - 2(-1) = 3$

$y = \sqrt[3]{(x-1)^3} = \sqrt[3]{x^3 - 4x^2 + 4x - 1}$
 $a = -4 \quad b = 1$
 $y = x-1 \quad -4 \leq x \leq 1 \rightarrow -1 \leq x-1 \leq 0$

$\frac{x+1}{1-x} > 0 \rightarrow \frac{1}{-1} + \frac{1}{-1} \rightarrow -1 < x < 1 \rightarrow -1 < R_f < 1$

$x^2 = 0 \rightarrow y = \frac{1}{b} \quad x^2 = +\infty \rightarrow y = a$
 $a = 1 \quad b = 1 \rightarrow a = -1 \quad b = -1 \rightarrow (-1)$

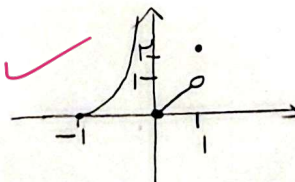
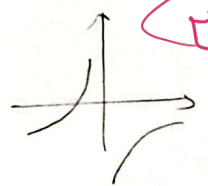
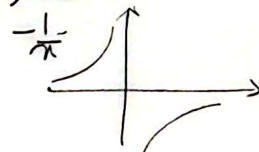
$x^2 \rightarrow \infty \rightarrow a < 1 \rightarrow a + b < 2$
 $\rightarrow -\frac{1}{b} + 1 \rightarrow b = +1$

$-1 \leq x < 0 \rightarrow y = \frac{1}{x} - 1$

$0 \leq x < 1 \rightarrow y = 0 + x = x$

$x = 1 \rightarrow y = \frac{1}{1} + \frac{1}{1} = 2$

نمی تواند $x^2 + 1$ صورت و خارج باز می شود



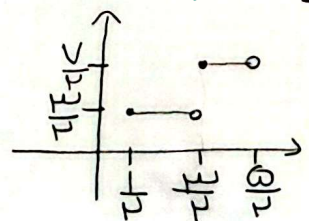
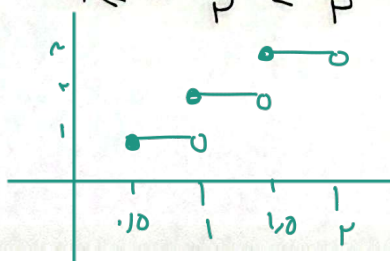
بردار با قدر مطلق حتما عدد صحیح است!

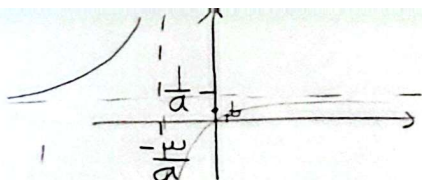
$y = [x] + [x + \frac{1}{2}] + \frac{1}{x} - \frac{1}{p} = 2[x + \frac{1}{2}] - \frac{1}{p}$

$1 \leq x + \frac{1}{2} < \frac{3}{2}$

$1 \leq x + \frac{1}{2} < 2 \rightarrow y = 2 - \frac{1}{p} = \frac{2p-1}{p}$

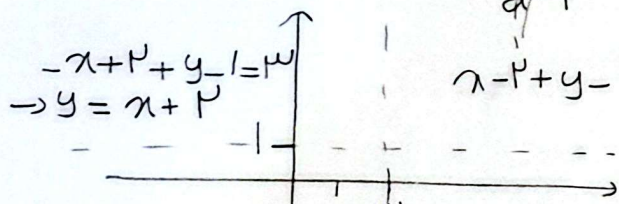
$2 \leq x + \frac{1}{2} < 3 \rightarrow y = 3 - \frac{1}{p} = \frac{3p-1}{p}$





$$\frac{1}{a} = 1 \Rightarrow a = 1$$

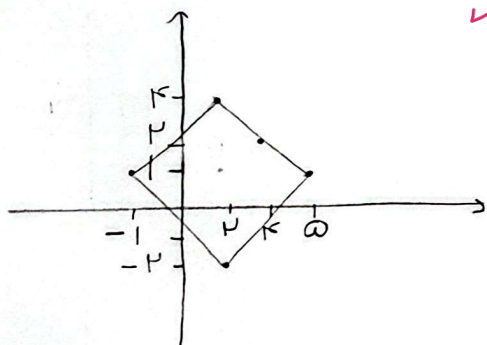
$$-\frac{1}{a} = b \Rightarrow b = -1 \rightarrow \textcircled{10}$$



$$x - 1 + y - 1 = 1 \Rightarrow y = -x + 4$$

$$-x + 1 - y + 1 = 1 \Rightarrow y = -x$$

$$x - 1 - y + 1 = 1 \Rightarrow y = x - 1$$



$$|c| < |d| \quad (c-d)(c+d) < 0$$

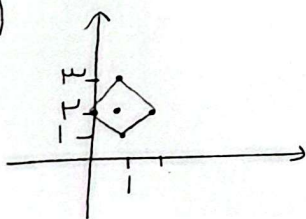
$$(a_n + n + 1)(n - a_n - 1) < 0$$

$$a < 1 \quad (x + 1)(-1) < 0 \quad b < -1$$

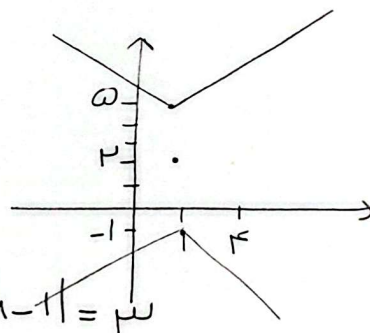
$$a < -1 \quad (x - 1)(1) < 0 \quad \text{غیر}$$

$$a - b < c$$

الف)



ب)

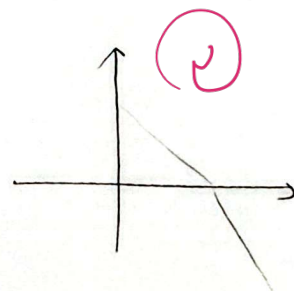
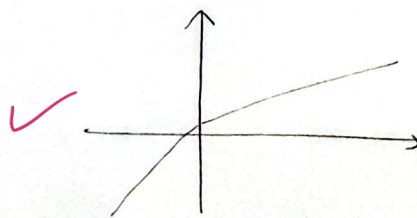


$$|y - 1| - |x - 1| = 1$$

$$3x - ax - b = x(3 - a) - b$$

$$-\frac{b}{a}$$

$$3x + ax + b = x(3 + a) + b$$



هر دو سبب باید همیافت باشند و برای صورت هر دو سبب به دست +

$$(3 - a)(3 + a) > 0$$

$$-3 < a < 3$$

$$-3 < a < 3$$