

$(9, x+2y), (3x-y, -4)$        $3x-y = 9$        $9x-2y = 18$   
 $x+2y = -4$        $\sqrt{x} = 1$   
 $x = 2$        $y = -3$   
 $\frac{x}{y} = -\frac{2}{3}$   
 $(-1, -3)$        $(\frac{1}{2}, -\frac{1}{5}), (\frac{5}{2}, -\frac{1}{5})$        $\frac{1}{2} - \frac{1}{y} = -1$        $\frac{y-x}{2xy} = -1$        $y-2x = -2xy$   
 $\frac{5}{2} - \frac{1}{y} = -3$        $\frac{5y-1}{2y} = -3$        $5y-1 = -6y$   
 $11y = 0$        $11y = 0$        $11y = 0$

$a+1 = -1 \Rightarrow a = -2$   
 $f(a) = 2a = -4$   
 $f(2) = b$        $f(1) = -2$   
 $-9 + 2b = -4$        $2f(1) = -4$   
 $b = 0$

$m^2 - 3m = -2$        $(-1, m^2-3m) = (-1, -2)$   
 $m^2 - 3m + 2 = 0$   
 $(m-2)(m-1) = 0$   
 $m=2$        $(2, 5)$        $(2, 6)$   
 $m=1$        $(1, 6)$        $(1, 4)$   
 هیچ مقدار

۱) تابع نیست  
 ۲) تابع است  
 $y = x - 1$   
 ۳) تابع است  
 $y = |x|$

$y = -\sqrt{x+1}$        $x = \frac{y}{\sqrt{1-y^2}}$   
 $x = 1$        $\frac{y}{\sqrt{1-y^2}} = 1 \Rightarrow \sqrt{1-y^2} = y$   
 $1-y^2 = y^2$        $1 = 2y^2$        $y^2 = \frac{1}{2}$        $y = \pm \frac{1}{\sqrt{2}}$

$$x=1$$

$$1 = |y| \\ y = \pm 1$$

تابع نسبت

$$y^3 + y$$

جمله

تابع است

$$y^3 + 3y^2 + 3y + x^3 + x$$

$$y_1^3 + 3y_1^2 + 3y_1 = -x^3 - x$$

$$y_2^3 + 3y_2^2 + 3y_2 = -x^3 - x \quad y_1 = y_2$$

$$y_1(y_1^2 + 3y_1 + 3) = y_2(y_2^2 + 3y_2 + 3)$$

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$$f(x) = \frac{x^3 + 3x^2 + 3x + 1}{x^3 + 3x^2 + 3x + 3} = \frac{(x+1)^3 + 1}{(x+1)^3 + 3}$$

$$f(\sqrt{3}-1) = \frac{(\sqrt{3})^3 + 1}{(\sqrt{3})^3 + 3} = \frac{4}{6} = \frac{2}{3}$$

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$$y = 3x - a$$

$$x^2 + ax + b = y$$

$$-1 = -3 - a$$

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

$$a = 1$$

$$b = -2$$

$$2x - 1 = 2^3 + x - 2$$

$$2^3 - 2x - 1$$

ضرایب در برابر

$$\begin{array}{r} x^2 - 2x - 1 \\ x^2 + x^2 \\ \hline -2x - 2x \\ -2x - x \\ \hline -x - 1 \\ -x - 1 \\ \hline -x - 1 \end{array}$$

$$\frac{x+1}{x^2 - x - 1} \quad (s=1)$$

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

$$b = a$$

$$2a = -a + 1$$

$$3a = 1$$

$$a = \frac{1}{3}$$

$$b = \frac{1}{3}$$

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$$x = y$$

$$x = \frac{ax^2 + a + c}{bx + 2}$$

$$bx^2 + 2x = ax^2 + a + c$$

$$b = a + b + c - 2 - 1 = 0$$

$$a = -2$$

$$c = -1$$

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