

<p>الف) تابع نیست $y = 4 \rightarrow y = \pm 4$</p>	
<p>ب) $y = -x$ $\rightarrow -x^3 + 3x^2 - 2x + 2x + x = 0$ $3x^2 - 2x = 0$ $x(3x - 2) = 0$ $x = 0$ $x = \frac{2}{3}$</p> <p>تابع نیست</p>	6
<p>$f(\sqrt{3}-2) = \frac{(\sqrt{3}-2)^3 + 3(\sqrt{3}-2) + 2}{(\sqrt{3}-2)^2 + 3(\sqrt{3}-2) + 7}$</p> <p>$\frac{3 + 3\sqrt{3} - 6\sqrt{3} + 4 - 12 + 12 + 2}{3 + 3\sqrt{3} + 6\sqrt{3} - 12 + 7} = \frac{4}{4} = 1$</p>	7
<p>$\rightarrow y = 3x - a$ $-f = 3 - a \Rightarrow a = 3 - f$</p> <p>$f(x) = x^3 + ax + b = x^3 + (3-f)x + b = -f$ $b = -f$</p> <p>$y = 3x - 1$ $f(x) = x^3 + x - 1$</p> <p>$x^3 + x - 1 = 0$ $x^3 - 1 = -2x$ $(x-1)(x^2 + x + 1) = -2x$ $x=0 \rightarrow x_2 = 0, y_1 = -1$ $x=1 \rightarrow x_2 = 1, y_1 = 0$</p>	8
<p>$a + b = a + a + b = 1$ $a + b = 2a$ $a = b = \frac{1}{2}$</p> <p>$\alpha = \frac{1}{\mu}$</p>	9
<p>$x=0 \rightarrow \frac{c+1}{\mu} = 0 \rightarrow c+1=0 \rightarrow c = -1$</p> <p>$x=1 \rightarrow \frac{c-a}{b+\mu} = 1 \rightarrow c-a = b+\mu$ $a = b + 1$</p> <p>$x=2 \rightarrow \frac{c-2a}{2b+\mu} = 2 \rightarrow c-2a = 2b+\mu$ $a + 2b = c - \mu$</p> <p>$\begin{cases} a + b = 1 \\ a + 2b = c - \mu \\ -a = \mu \\ a = -\mu \\ b = 1 + \mu \end{cases}$</p> <p>$a + b + c = 1 + \mu + c = 0$</p>	10