

مثال نقده برابر اثبات تابع نبودن است! $y^2 - 2xy = 2x - 1$
 $\Rightarrow x=0 \rightarrow y^2 = -1 \rightarrow y = \pm i$
 $\Rightarrow x=1 \rightarrow y^2 = 1 \rightarrow y = \pm 1$
 نتایج متضاد است

$\frac{x+y}{2} = \sqrt{xy} \Rightarrow x+y-2\sqrt{xy} = 0 \Rightarrow (\sqrt{x}-\sqrt{y})^2 = 0$
 $\Rightarrow \sqrt{x} = \sqrt{y} \Rightarrow x = y$ ✓

$x \cos y = y \cos x \xrightarrow{x=y} x \cos x = 0$
 $\cos x = 0 \rightarrow x = \frac{\pi}{2} + k\pi$ ✓

$xy^2 + 2x - y^2 - 2y = 0 \Rightarrow xy^2 + 2x = y^2 + 2y$
 $\Rightarrow x(y^2 + 2) = y(y^2 + 2) \Rightarrow x = y$ ✓

$y > x \rightarrow x^2 - y = 0 \rightarrow x^2 = y$ ✓
 $y < x \rightarrow x^2 - 2y = 0 \rightarrow \frac{x^2}{2} = y$

تابع است ✓

$\rightarrow [y] + [x] = 1 \xrightarrow{x=0} [y] = 1 \rightarrow 1 < y < 2$ ✓

$f_n = \begin{cases} 2n^2 - b & n \geq 3, n \leq 1 \\ a + 2n & 0 \leq n \leq 3 \end{cases}$

$\rightarrow x=3 \rightarrow 18 - b = a + 6 \rightarrow a + b = 12$ ✓

$\sqrt{a-bx-x^2} \quad D_f = [b, a] \Rightarrow \sqrt{-(x-a)(x-b)} = \sqrt{-x^2 + (a+b)x - ab}$
 $a+b = -b \rightarrow a = -2b \rightarrow a = 2$ ✓
 $-ab = a \rightarrow -b = 1 \rightarrow b = -1$ ✓
 $a+b = -1$ ✓

$\sqrt{ax^2 + bx + c}$
 $\Rightarrow a = 0$ ✓ $bx + c > 0 \rightarrow C = -2b$ ✓ $b < 0$ ✓
 $2a + c - 3|b| = -2b + 3b = b$ ✓

الف) تعريف y : $y_1^r - 2u_1^r = 2u_1 - 1$ $\xrightarrow{u_1 = u_2}$ $y_1^r = y_2^r$ ١-

$y_2^r - 2u_2^r = 2u_2 - 1$

$y_1 = y_2$ تابع هست