

$$v = \frac{a}{\sqrt{a^2-2}} \Rightarrow \frac{a_1}{\sqrt{a_1^2-2}} = \frac{a_2}{\sqrt{a_2^2-2}} \Rightarrow \frac{a_1^2}{a_1^2-2} = \frac{a_2^2}{a_2^2-2} \Rightarrow a_1^2 a_2^2 - 2a_1^2 = a_1^2 a_2^2 - 2a_2^2 \Rightarrow a_1^2 = a_2^2 \Rightarrow a_1 = \pm a_2$$

$$n = \frac{v}{\sqrt{v^2-2}} \Rightarrow \frac{v^2}{v^2-2} = n \Rightarrow \frac{v^2+0}{v^2-2} = -\frac{-2n^2}{n^2-1} \Rightarrow \frac{2n^2}{n^2-1} \Rightarrow \frac{\sqrt{2}n}{\sqrt{n^2-1}} \Rightarrow \text{بسیار ساده}$$

$$f^{-1}(a) = \frac{a}{1+|a|}$$

$$g(a) = \sqrt{a} - 1 \quad f\left(-\frac{2}{5}\right) + g^{-1}\left(-\frac{2}{5}\right)$$

$$n = \sqrt{v} - 1 \quad [-1, +\infty)$$

$$n+1 = \sqrt{v} \Rightarrow n^2 + 1 + 2n = v$$

$$\Rightarrow \frac{\frac{2}{5}}{1-\frac{2}{5}+1} = \frac{\frac{2}{5}}{\frac{4}{5}} = -\frac{2}{4} + \left(-\frac{2}{5} + 1\right)^2 = -\frac{2}{4} + \frac{9}{25} = \frac{1}{50}$$

$$\frac{a+0}{|a|+1} = -\frac{a}{|a|-1}$$

$$\frac{-23}{\sqrt{5}}$$

$$f^{-1}(a) = \sqrt[3]{a-1}, \quad g(a) = f(a) + \sqrt{f(a)}$$

$$g^{-1}(12) = ? \quad \frac{f(n)}{a} + \frac{\sqrt{f(n)}}{b} = 12$$

$$n = \sqrt[3]{v-1}$$

$$n^3 + 1 = 9 \Rightarrow n^3 = 8$$

$$f(n) = 9$$

$$n^3 + 1 = 9$$

$$\underline{n = 2}$$