

$$\frac{-\frac{r}{p}}{x} \quad \checkmark \quad \Delta$$

$$\sqrt{r+pn} \quad \sqrt{n}$$

$$n \geq 0$$

$$r+pn \geq 0$$

$$pn \geq -r$$

$$n \geq -\frac{r}{p}$$

$$pn - 1 - n + 1 = n$$

$$pn + p - n + 1 = r + pn$$

$$D_f = \left[-\frac{r}{p}, +\infty \right)$$

$$\frac{(rnx + r_{n+1})(r_{n+p})}{(rnx + r_{n+1})^p} = \frac{r_{n+p}}{rnx + r_{n+1}}$$

$$rnx + r_{n+1} \neq 0$$

$$(r_{n+1})^p \neq 0$$

$$n \neq -\frac{1}{r}$$

$$D_f = \mathbb{R} - \left\{ -\frac{1}{r} \right\}$$

$$\frac{(n^p - 1)(n+p)}{n^p - 1} = n+p$$

$$g(n) = n+c = n+p \quad c=p$$

$$\frac{a+p}{1+b} = p$$

$$\frac{-a+p}{-1+b} = 1$$

$$p = p + pb$$

$$b+c = p + \frac{1}{p} = \frac{a}{p}$$

$$p = pb$$

$$a+p = p + pb$$

$$-a+p = -1+b$$

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

$$n^p + an + b = (n-c)^p$$

$$(n-1)^p = n^p - pn + 1 = n^p + an + b$$

$$n^p - 1 = (n+1)(n-1)$$

$$a = -p \quad b = 1$$

$$n-c = n-1$$

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

$$c = 1$$

$$f(n+1) \rightarrow (n-p)^p(n) = (n^p - pn + p)(n) = n^p - pn^p + pn$$

$$f(1-n) \rightarrow (-p-n)^p(-n) = (n^p + pn + p)(-n) = -n^p - pn^p - pn$$

$$n^p - pn^p + pn - n^p - pn^p - pn = -2n^p$$

$$1 - \sqrt{x} = \sqrt{x}$$

$$-\sqrt{x} = \sqrt{x}$$

$$x = -1$$

$$f(x) = \sqrt[3]{-1} + \sqrt{x} = 1$$

$$1 - \sqrt{x} = -1$$

$$-\sqrt{x} = -2$$

$$x = 4$$

$$f(-1) = \sqrt[3]{-1} = -1$$

$$f(x) + f(-1) = \sqrt{x} + 1 = 2$$

$$x + \sqrt{x} = 9$$

$$x = 4$$

$$f(9) = \sqrt[3]{9} + \sqrt{9} = \sqrt[3]{9} + 3 = 3\sqrt[3]{9} + 1\sqrt{9} = 3\sqrt[3]{9} + 3$$

$$x-1 = t$$

$$1-x = -t$$

$$f(t) = t^3 + t$$

$$f(-t) = -t^3 - t$$

$$f(x-1) + f(1-x) = f(t) + f(-t) = t^3 + t + (-t^3 - t) = 0$$

$$f(x) = \sqrt{x-a} + k - 1$$

$$a = \frac{f}{x}$$

$$g(1) = \sqrt{b-f} + \sqrt{k}$$

$$b = f$$

$$\sqrt{f} - g = \sqrt{f-a} + \sqrt{k} - \sqrt{b-f} - \sqrt{k} = k$$

$$-\sqrt{f} = \sqrt{k}$$

$$k = -1$$

$$\sqrt{a} - \frac{b}{\sqrt{f}} - k = \sqrt{f} - \sqrt{f} + 1 = 1$$

$$\sqrt{x} + \sqrt{y} \geq 0$$

$$\sqrt{x} \geq -\sqrt{y}$$

$$x \geq -y$$

$$\sqrt{m-n} \geq 0$$

$$m \geq n$$

$$\sqrt{y} \geq x$$

$$m = \sqrt{y}$$

$$g(x) = \sqrt{x}$$

$$f(x) = \sqrt{x} + n$$

$$\sqrt{x} + n - \sqrt{y} = \sqrt{y}$$

$$n = \sqrt{y} - \sqrt{x}$$

$$m+n = \sqrt{y} - \sqrt{x} + \sqrt{y} = 2\sqrt{y} - \sqrt{x}$$