

$$f(n) = \frac{1}{n} \sum_{d|n} \mu(d) f\left(\frac{n}{d}\right)$$

[illegible]

$$\begin{pmatrix} m-1 \\ 0 \end{pmatrix} \left| \begin{matrix} x & y \\ z & w \end{matrix} \right|$$

$$Q = (m, v)(m, v)(m, v)$$

$$\begin{array}{c|c} \begin{array}{c} \psi > 0 : (v, v) \cup (v, \infty) \\ \psi < 0 : (-\infty, v) \cup (v, t) \end{array} & \begin{array}{c} \psi > 0 : (-\infty, v) \cup (v, \infty) \\ \psi < 0 : (v, v) \cup (v, t) \end{array} \end{array}$$

(ج) $\frac{1}{2} \times 2 = 1$

$$\begin{array}{c} \frac{p}{p} \\ \hline + \quad - \quad - \quad + \end{array} \quad \begin{array}{c} \frac{p}{p} \\ \hline + \quad - \quad - \quad + \end{array}$$

$$\begin{aligned} & \frac{x^3 - x^2 + x - 1}{x^2 - 1} = (x - 1) \quad (x+1) \\ & \frac{x^3 - x^2 + x - 1}{x^2 - 1} = (x - 1) \quad (x+1) \end{aligned}$$

$$\frac{a^{n-1} - a^{n-1} (n-1) (a^2 + a - 1) (1 - a^n) U}{1 - a^{n-1} (1 - a^{2n}) U} = \frac{a^{n-1} (n-1) (a^2 + a - 1) (1 - a^n) U}{1 - a^{n-1} (1 - a^{2n}) U}$$

$$\frac{a_1 a_2}{a_1^2 + a_2^2} = \frac{(-1, 2, 0) \cdot (-1, 2, 0)}{(-1, 2, 0) \cdot (-1, 2, 0)}$$

$$0 = v^2 - \varepsilon(1)(z) \rightarrow \varepsilon(1) = A \leq 0$$

[illegible]

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$$\begin{array}{ccccccc} & p & m & & f \\ + & - & - & & + \end{array}$$

$$(-\infty, v)(v, w_1)(w_1, w_2)(w_2, w_3)(w_3, f)$$

$$\frac{x^p - x^q - x^r + p}{x^p - x^q + p} \quad (x^p, x^q, x^r)$$

$\alpha_1 + \alpha_2 + \dots + \alpha_n$

$$A - T - f(1) f(5) - 9.18 - 0.4 < 0$$

$$D = V - E(1)(u) \rightarrow E^{-1}P_0 - A < 0$$

$$x \in R$$

(الف) $y^3 = x^3 - 1$ $y^3 = 0 \Rightarrow y = 0$ $y = \sqrt[3]{-1}$ پسین نسبت با همی در یکال طریق پس تابع	(ب) $y^3 + y = x^3 - 1$ $y^3 + y - (x^3 - 1) = 0$ $y = \frac{-1 \pm \sqrt{1 + 12x^3 - 12}}{2}$ پسین نسبت با همی در یکال طریق پس تابع	۱
(الف) $y = x^3 - 1$ $x = 2$ $y = 2^3 - 1 = 8 - 1 = 7$ $x = 2$ $y = 2^3 - 1 = 8 - 1 = 7$	(ب) $y + xy = x^3 - 1$ $x = 0$ $ y + 0 = x^3 - 1$ $ y = 1$ $y = 1$ $y = -1$ (ج) $y^3 = x^3 - 1$ $y^3 = x^3 - 1 - x^3$ $y = \sqrt[3]{x^3 - 1 - x^3}$ $m = 1$ $y = \sqrt[3]{1(1) - 1} = 0$ $y = \sqrt[3]{0} = 0$ (د) $\sqrt[3]{y} + \sqrt[3]{x} = 2$ $\sqrt[3]{y} = 2 - \sqrt[3]{x}$ $y = (2 - \sqrt[3]{x})^3$ $x = 0$ $\sqrt[3]{y} = 2$ پسین نسبت با همی در یکال طریق پس تابع	۲
(الف) $\tan \frac{\pi}{3}$ $\tan 4 = \sqrt{3}$ (ب) $\tan 4 = -\frac{\sqrt{3}}{3}$	(ب) $\cot 110^\circ = \frac{\cos 110^\circ}{\sin 110^\circ}$ $\cot 110^\circ = \frac{\cos 110^\circ}{\sin 110^\circ} = \frac{-\frac{\sqrt{3}}{2}}{-\frac{1}{2}} = \sqrt{3}$	۳
$\sin u = \frac{1}{2}$ $\sin \frac{\pi}{6} = \frac{1}{2}$ $u = \frac{\pi}{6}, \frac{5\pi}{6}$	(ب) $\cos u = \frac{\sqrt{3}}{2}$ $\cos \frac{\pi}{6} = \frac{\sqrt{3}}{2}$ $u = \frac{\pi}{6}, \frac{11\pi}{6}$	۴
$f(x) = \frac{x^3 - 1}{x^2 + 1}$ $n > 1$ $-1 < n < 1$ $n < -1$ $n = -1$ $n < -1$ $(-1, 0)$	$y = x^3 - 1$ $-1 < n < 1$ $(0, 0)$ $(-1, 0)$ $(1, 0)$ $y = -x^3 + 1$ $y = -2(1) + 1 = -1$ $(1, -2)$ $n = 1$	۵