

ان) $x \neq 1, 0$

$$\frac{(x-1)^r - x^r}{x-1(n)}$$

$$(-\infty, 0) \cup \left[\frac{1}{r}, 1\right)$$

$$\frac{x^{r+1} - (n-x)^r}{(x-1)(n)}$$

$$\frac{-r(x+1)}{(x-1)(n)} \quad \frac{1}{4} - \frac{1}{r+1} - \frac{1}{r}$$

if $x \leq 0 \rightarrow \frac{1}{r} - \frac{1}{r} < 0$

$$\frac{x - (n-x-r)}{x(n+1)} = \frac{-n-r}{x(n+1)}$$

$$f(x) = \frac{-r}{x}$$

$$\frac{r(x+r) + x-1}{(n+r)(n-1)}$$

$$P_5/K, \left\{0, 1, \frac{2}{r}, r, 1\right\}$$

$$\text{ان) } r^{-n} \gg 0 \rightarrow r^{-n} \gg r^r$$

$$x, r^{-r}$$

$$r^{-r} \gg \varepsilon^n \rightarrow r^2 \gg r^{rx}$$

$$x, r^{-r}, 0$$

$$\frac{-r}{4} - \frac{r^2}{r+1} +$$

$$\rightarrow 1(x) \quad [1, +\infty)$$

$$x^r - n - r > 0 \quad (x-1)(n+1) > 0 \quad \frac{1}{r+1} - \frac{1}{r+1}$$

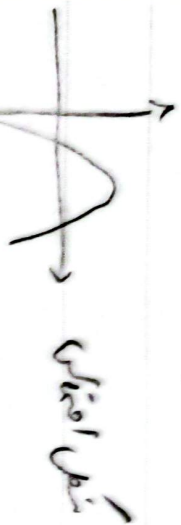
$$1(x) \quad (-\infty, -1) \cup (r, \infty)$$

$$\frac{1}{x} \quad (\infty, -1) \cup (r, +\infty)$$

$$\sqrt{x^2 - 2ax - 3} = \sqrt{-1 - 2a} \quad [-2, b]$$

$$-1 - 2a \geq 0 \rightarrow \frac{-1}{2} \geq a$$

بین درجہ

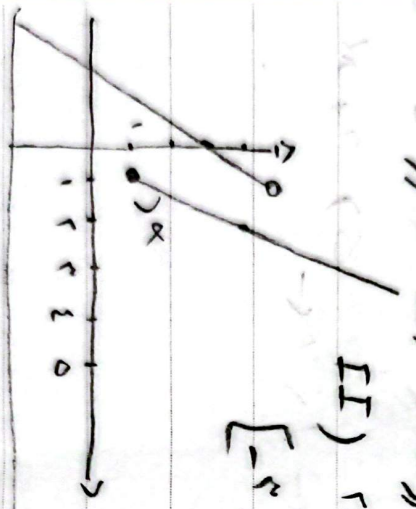


$$a = \frac{-1}{2} \text{ و } a = -1 + b \rightarrow -1 + b = -\frac{1}{2}$$

$$b = \frac{1}{2} \quad \frac{1}{2} - \frac{1}{2} = 0$$

$$I(x^2 - 2ax - 3) \rightarrow (x^2 - 2ax - 3) \cdot x \cdot \sqrt{-1 - 2a}$$

$$II) (x^2 - 2ax - 3) \cdot x \cdot \sqrt{-1 - 2a}$$



$$\sin \frac{\pi}{2} = \frac{\sqrt{2}}{2} \quad \left(\frac{\sqrt{2}}{2} + 1 \right) \cdot x \cdot y \cdot \sqrt{2} (x - 1)$$

$$\left(\frac{\sqrt{2}}{2} + 1 \right) \left(\frac{\sqrt{2}}{2} - 1 \right) = -\frac{1}{2}$$

$$f(a) = \frac{a+1}{a-1} \quad f\left(\frac{a+1}{a-1}\right) = a$$

$$\frac{\frac{a+1}{a-1} + 1}{\frac{a+1}{a-1} - 1} = \frac{\frac{a}{a-1}}{\frac{2}{a-1}} = a \quad | R = \{1\}$$

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$$g(a) = \sqrt{a^2 - 1}$$

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$$f(\infty) = 2 \quad x^2 - 2x + 2 = 0$$

$$(x-1)^2 = 0$$

$$\sqrt{a^2 - 1} = 2 \quad x = 1 = \infty$$

$$a^2 - 1 = 2$$

$$a^2 = 3 \quad a = \pm\sqrt{3}$$

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$$f(x+2) = (x-2)(x-2)$$

$$f(-4+2) = (-4)(-4) = 16 \rightarrow \sqrt{16} = 4$$

$$f(1+2) = (-1)(-1) = 1$$

$$2\cos^2 x + 3\cos x - \frac{1}{2} = 0$$

- 1.

$$\cos^2 x + 3\cos x - \frac{1}{2} = 0$$

$$(\cos + \frac{1}{2})(\cos - 2) = 0$$

$$\cos x = -\frac{1}{2} \quad \alpha = \frac{2\pi}{3}$$

$$\left\{ \frac{1}{2}, \frac{1}{2}, \frac{1}{2} \quad \cos \alpha = \frac{1}{2} \quad \tan \alpha = \frac{\sqrt{3}}{1} \right\}$$