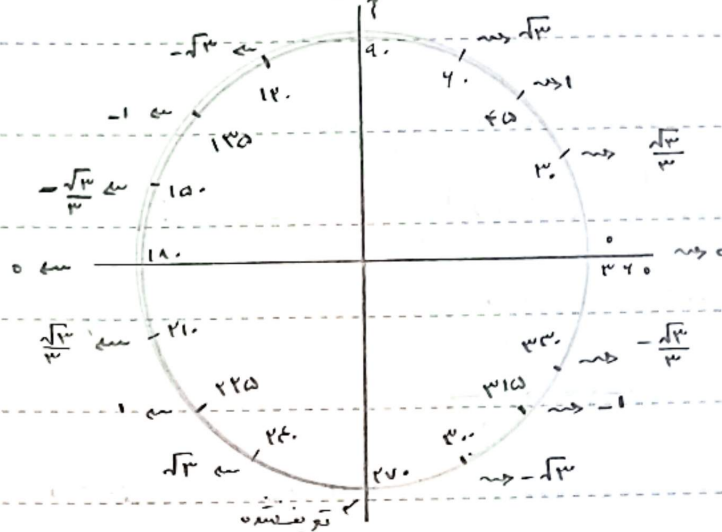


نقطه اصلی ضلع ستاره بازدهم دخت

تعیین نمود



$$\tan x = \frac{\sin x}{\cos x}$$

$$-r \rightarrow -\frac{y}{x}$$

$$r - \sin \frac{\pi}{4} + \cos \frac{\pi}{4} + r \tan \frac{\pi}{4} \rightarrow \frac{1}{r} = 1 - r \quad z = \frac{-\frac{y}{x}}{r}$$

$$1) -\cos \frac{\pi}{4} + \sin \frac{\pi}{4} - r \sin \frac{\pi}{4} \rightarrow \frac{\sqrt{2}}{r} + \frac{\sqrt{2}}{r} + \frac{r\sqrt{2}}{r} = \frac{2\sqrt{2}}{r}$$

$$2) \cot \frac{\pi}{4} + r \cot \frac{\pi}{4} - r \tan \frac{\pi}{4} \rightarrow \frac{-\sqrt{2}}{r} + \frac{r\sqrt{2}}{r} + \frac{r\sqrt{2}}{r} = \frac{r\sqrt{2}}{r}$$

$$3) \cos(\sin \frac{\pi}{4}) + \sin(r \cos \frac{\pi}{4}) \rightarrow 1 + 1 = r$$

$$r - f(x) = \begin{cases} x^r + \epsilon x & x > a \\ rx + a + r & x \leq a \end{cases} \quad x=a \quad a^r + \epsilon a = ra + r \rightarrow a^r + a - r = 0$$

$$(a+r)(a-1) = 0 \rightarrow a = -r/1 \quad \leftarrow$$

$$(a>0) \quad \hat{0} \hat{0} \hat{\epsilon} \sim$$

$$f(1) = x^r + \epsilon x \xrightarrow{x=1} 1 + \epsilon = \underline{0}$$

$$f = f(x) = \begin{cases} rx^r - b & |x+1| \geq r \\ a + rx & -r \leq x \leq -1 \end{cases} \quad \begin{aligned} &x+1 \geq r \rightarrow x \geq 1 \\ &x+1 \leq -r \rightarrow x \leq -r-1 \end{aligned} \quad ; \quad a+b?$$

$$x = -r \rightarrow 1 - b = a - r \rightarrow \underline{a+b = rk}$$

Subject:

Date: / / $\langle D_f: \mathbb{R} - \{0, \pm 1\} \rangle$

a- (a) $y = \frac{1}{x^2 - 4x^2} \quad x^2 - 4x^2 \neq 0 \rightarrow x^2(x-4) \neq 0 \rightarrow x \neq 0, x \neq 4$

b) $y = \frac{1}{(x^2 + 4x^2 + 4x + 4)(x+4)(x^2+1)}$ $x+4 \neq 0 \rightarrow x \neq -4 \Rightarrow \mathbb{R} - \{-4\}$

4- (a) $y = \sqrt{x^2 - 1} + \sqrt{x - 2} \quad \textcircled{1} \quad x^2 - 1 \geq 0 \rightarrow x^2 \geq 1 \xrightarrow{\sqrt{\quad}} |x| \geq 1 \rightarrow x \geq 1$

$\textcircled{2} \quad x - 2 \geq 0 \rightarrow x \geq 2 \quad \frac{1}{x} \rightarrow \frac{1}{x} \geq \frac{1}{2} \rightarrow D_f = [2, +\infty)$

b) $y = \frac{\sqrt{4-x^2}}{\sqrt{4x-x^2}} \quad \begin{cases} 4-x^2 \geq 0 \rightarrow 4 \geq x^2 \rightarrow 2 \geq x \\ 4x-x^2 \geq 0 \rightarrow 4x \geq x^2 \rightarrow 4 \geq x \end{cases} \quad D_f = (0, 2]$

v- $y = \sqrt{4x-a} + \sqrt{b-x^2} \Rightarrow D_f = \{x\}$

$x \geq \frac{a}{4} \leftarrow 4x \geq a \quad b \geq x^2 \rightarrow \frac{b}{x} \geq x \quad \frac{a}{4} = x \rightarrow a = 4x \quad \frac{b}{x} = x \rightarrow b = x^2$

h- (a) $y = \sqrt{\frac{x^2 - x - 4}{x^2 - 13x^2 + 44}} \rightarrow (x-3)(x+4) \geq 0$

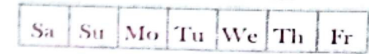
$x^2 - 13x^2 + 44 \xrightarrow{x^2 = t} x^2 - 13t + 44 \rightarrow (t-9)(t-4) \geq 0$

$\langle D_f: (-\infty, -3) \cup (3, 4) \cup (4, +\infty) \rangle$

b) $y = \sqrt{\frac{x^2 - 13x^2 - 2x + 4}{x^2 + 2x^2 - 2x - 4}} \rightarrow \sqrt{\frac{(x-1)(x-3)(x+4)}{(x+1)(x+2)(x-2)}}$

$\begin{array}{l} x^2 - 13x^2 - 2x + 4 \quad | \quad x-1 \\ \underline{-x^2 - x^2} \\ -x^2 - 2x + 4 \\ \underline{+x^2 + x} \\ -4x + 4 \\ \underline{+4x - 4} \\ 0 \end{array} \quad \begin{array}{l} x^2 + 2x^2 - 2x - 4 \quad | \quad x+1 \\ \underline{-x^2 - x^2} \\ -x^2 - 2x - 4 \\ \underline{+x^2 + x} \\ -x - 4 \\ \underline{+x + 4} \\ 0 \end{array}$

Date : / /



ب) $y = \sqrt{x[n] - \omega}$ $x[n] - \omega \geq 0 \rightarrow [n] \geq \frac{\omega}{v} \rightarrow x \geq \frac{\omega}{v} \rightarrow (x_1, D_f)[x_2 + \infty)$

(v) $4 - x > 0 \rightarrow 4 > x$

① $[n] - \epsilon > 0 \rightarrow [n] > \epsilon \rightarrow [\epsilon, +\infty)$ / ② $r - [n] > 0 \rightarrow r > [n] \rightarrow (-\infty, r)$

