

$$12 \times 3 \uparrow$$

$$-c\varepsilon, \alpha + \pi\gamma = 1, \alpha$$

$$f(110) = \frac{1}{r} (110) + 1 = \frac{\sqrt{2}}{2}$$

(10)

ing, $\tilde{L}_3$ by

(1)

$$f(m) = \frac{b}{r} \sin r\alpha + a$$

$$T = \frac{\pi}{r} - \frac{\pi}{10} = \frac{\pi}{10} = \frac{\pi}{10}$$

$$\frac{\pi}{10} = \frac{\pi}{10} \Rightarrow C = \frac{\pi}{10}$$

$$a = \frac{\pi + 0}{r} = \pi$$

$$|b| + \pi = \pi \Rightarrow b = 0$$

$$\frac{b}{a} = \frac{0}{\pi} = 0$$

(9)

$$\frac{\pi}{10} = \pi \Rightarrow b = \pi$$

$$\frac{\pi - \pi}{r} = -1 = C$$

$$|a| - 1 = \pi \Rightarrow a = \pi + 1$$

$$-r \cos r\alpha - 1 = 0$$

$$\cos r\alpha = -\frac{1}{r}$$

$$1 + \tan r\alpha = \frac{1}{\cos r\alpha} \Rightarrow 4$$

$$\Rightarrow |\tan r\alpha| = \sqrt{15}$$

برای کثرت روید

(1)

$$S_{ABC} = \frac{1}{r} \log_r r \times \log_c r \times \sin \frac{\pi}{r} =$$

$$= r \log_r r \times \frac{1}{\log_c r} = r$$

(a)

$$AB = OB - OA$$

$$\alpha + \theta_1 = \frac{\pi}{r} \Rightarrow \sin \alpha = \cos \theta_1 = \frac{OT}{OB}$$

$$= \Rightarrow OB = \frac{OT}{\sin \alpha}$$

$$OA = OT$$

$$\frac{OT}{\sin \alpha} - OT = \frac{OT(1 - \sin \alpha)}{\sin \alpha}$$

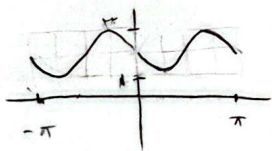
$$= \frac{1 - \sin \alpha}{\sin \alpha}$$

(2)

$$y = -\sin 2x + r$$

(ب) (4)

$$T = \frac{2\pi}{|b|} = \frac{2\pi}{r} = \pi$$



$$\frac{AC}{\sin \alpha} = \frac{c}{\sin \epsilon}$$

$$\frac{AB}{\sin(\pi - \epsilon)} = \frac{4}{\sin \epsilon}$$

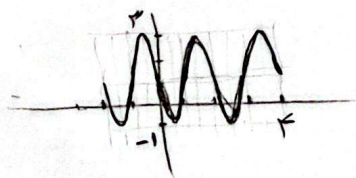
$$\frac{AB}{AC} = \frac{\sin \alpha \times 4 \times \frac{\sqrt{e}}{e}}{\sin \alpha \times 5 \times \frac{1}{e}}$$

$$= 4\sqrt{e}$$

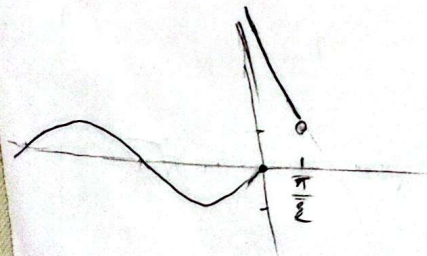
(-)

$$y = r \cos\left(\pi x + \frac{\pi}{r}\right) + 1 = -r \sin(\pi x) + 1$$

$$T = \frac{2\pi}{|b|} = \frac{2\pi}{\pi} = 2$$



(v)



$$R = [-1, \infty)$$

(ج) (3)

$$\cos A = \frac{1}{e} \Rightarrow A = \frac{\pi}{e} \quad \sin B = \frac{1}{e} \Rightarrow B = \frac{\pi}{e}$$

$$S_{ABC} = S_{AOB} + S_{BOC} + S_{COA}$$

$$= \frac{1}{r} \times 1 \times 1 \left(\sin \frac{\pi}{e} + \sin \frac{\pi}{e} + \sin \frac{\pi}{e} \right)$$

$$= \frac{3 + \sqrt{e}}{e}$$

(-)

$$P = AC + CB + BA =$$

$$\sqrt{1 + 1 - 2 \cos \frac{\pi}{e}} + \sqrt{r - 2 \cos \frac{\pi}{e}} + \sqrt{r - 2 \cos \frac{\pi}{e}}$$

$$= \sqrt{r+e} + \sqrt{e} + \sqrt{r}$$