



$$r^2 = b^2 + c^2 - 2bc \cos A \rightarrow c^2 = \sqrt{a^2 + b^2} + a^2 = 0$$

$$c = \frac{\sqrt{a^2 + b^2} \pm \sqrt{a^2 - b^2}}{2}$$

$$S = \frac{1}{2} \times \sin A \times bc = \frac{b^2 \sqrt{a^2} \pm b \sqrt{a^2 - b^2}}{2}$$

$$S = \frac{1}{2} \sqrt{a^2} (\log \frac{r}{b}) + \frac{1}{2} \sqrt{a^2 - b^2} (\log \frac{r}{b})$$

$$r \cos \alpha - r \sin \alpha - r \sin \alpha + \sin \alpha = \frac{r \cos \alpha (r \cos \alpha - 1) - \sin \alpha (r \sin \alpha - 1)}{\cos \alpha - \cos \alpha}$$

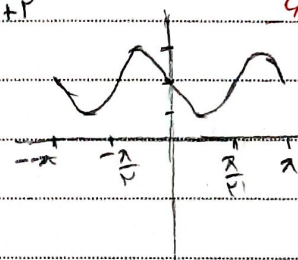
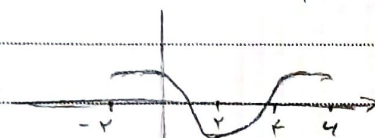
$$= \cos \alpha \times \cos \alpha + \sin \alpha \times \cos \alpha = \cos \alpha (\cos \alpha + \sin \alpha) = \cos \alpha = 1 \rightarrow \sin \alpha = 1 (\cos \alpha)$$

= 0

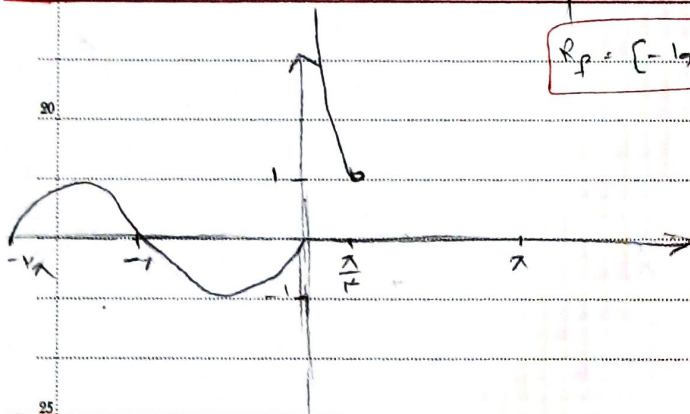
$$\text{amplitude} = \frac{r}{|b|} = \frac{r}{r} = 1 \quad y = -r \sin \pi x \sin \pi + r \rightarrow y = -\sin \pi x + r$$

$$\Rightarrow y = r \cos \pi (x + \frac{1}{2}) + 1 = r \cos (\pi x + \frac{\pi}{2}) + 1 = -r \sin \pi x + 1$$

$$T = \frac{r}{|b|} = \frac{r}{r} = 1$$



$$R_p = [-1, 1]$$



$$f(m) = b \sin(\pi m) \cdot \cos(\pi m) \cdot \cos(\pi m) + a \rightarrow f(m) = \frac{b}{2} \sin(\pi m) + a$$

$$\frac{b}{2} \sin(\pi m) + a$$

$$\begin{cases} \frac{b}{2} + a = r \\ -\frac{b}{2} + a = 0 \end{cases} \rightarrow \begin{cases} a = r \\ b = 1 \end{cases}$$

$$T = \frac{r}{\frac{b}{2}} = \frac{r}{\frac{1}{2}} = \frac{r}{1} \rightarrow |c| = \frac{r}{2}$$

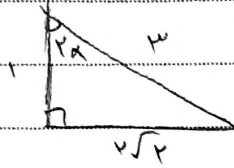
$$\frac{bc}{a} = \frac{1 \times \frac{r}{2}}{r} = \frac{1}{2}$$

$$c = \frac{r}{2}$$



$$\frac{y_A}{|x|} = \frac{y}{x} = 1 \Rightarrow f(x) = -\sqrt{2} \cos \alpha - 1 \Rightarrow f(\alpha) = -\sqrt{2} \cos \alpha - 1 = 0$$

$$\Rightarrow \cos \alpha = -\frac{1}{\sqrt{2}}$$



$$|\tan \alpha| = \frac{y}{x} = 1$$

$$T = \pi \Rightarrow f(x) = f(x + \pi) \Rightarrow -1 \leq -\sqrt{2} \cos \alpha + \sqrt{2} \leq 1 \Rightarrow \sqrt{2} \cos \alpha \leq \sqrt{2} \leq \sqrt{2} \cos \alpha$$

$$\Rightarrow \frac{\sqrt{2} \cos \alpha}{\sqrt{2}} \leq \frac{\sqrt{2}}{\sqrt{2}} \leq \frac{\sqrt{2} \cos \alpha}{\sqrt{2}} \Rightarrow \cos \alpha = 1$$

$$f(-\sqrt{2} \cos \alpha + \sqrt{2}) = f(-\sqrt{2} \cos \alpha + \sqrt{2}) = f(1) \quad f(1) = \frac{1}{\sqrt{2}}$$

