

$$\sin \frac{\pi}{\mu} = -\frac{\sqrt{r}}{r} \quad \cos \frac{\pi}{\mu} = -\frac{\sqrt{r}}{r}$$

(1)

$$ax - \frac{\sqrt{r}}{r} + bx - \frac{\sqrt{r}}{r} = -\frac{1}{\sqrt{r}} \rightarrow -\frac{\sqrt{r}}{r}(a+b) = -\frac{1}{\sqrt{r}} \Rightarrow \frac{r}{r}(a+b) = \frac{1}{r}(-a+b)$$

(2)

$$\rightarrow r_2 = -rb \rightarrow b = -r_2 \quad \frac{b}{a} = -\frac{r_2}{a} = -r$$

$$g = \sqrt{1 - \frac{1}{r}} = \sqrt{\frac{r}{r}}$$

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

(3)

$$PP' = \sqrt{(ap - ap')^2 + (gp - gp')^2} = \sqrt{\left(\frac{1}{r} + \frac{\sqrt{r}}{r}\right)^2 + \left(\frac{\sqrt{r}}{r} + \frac{1}{r}\right)^2} = \sqrt{\frac{1 + 4\sqrt{r}}{r}} = \sqrt{\frac{r + \sqrt{r}}{r}}$$

1 No

$$\frac{1 \text{ No}}{9} = r_2$$

$$r_2 = 9$$

نمبر واحد نبوی (11)

1 No (3)

$$140h - 55m \rightarrow |55m - 2| = r_2 \rightarrow m = r_2 \perp m = \frac{r_2}{55}$$

(4)

$$-\frac{1}{r} \leq \sin x \leq 1 \rightarrow -\frac{1}{r} \leq \frac{m - r}{\omega} \leq 1 \rightarrow -\frac{\omega}{r} \leq m - r \leq \omega$$

(5)

$$\rightarrow \frac{1}{r} \leq m \leq 1 \rightarrow m \in \mathbb{N}$$

$$\sin(90 + 15) = \cos 15$$

$$\cos(270 - 15) = -\sin 15$$

(6)

$$\cos(180) \cos(180 - 15) = -\cos 15$$

$$\sin(180 + 15) = -\sin 15$$

(7)

$$\frac{\cos 15 - 9 \sin 15}{-\cos 15 - 9 \sin 15} \Rightarrow \frac{1 - K \tan 15}{1 - 9 \tan 15} = \frac{1 - 0.1736 K}{1 - 0.1736}$$

$$\Rightarrow 0.1736 K = 0.1736 \quad K = 9$$

$$\frac{1 - \cos x}{1 + \cos x} = r \Rightarrow 1 - \cos x = r + r \cos x \Rightarrow r \cos x = -1$$

$$\rightarrow \cos x = -\frac{1}{r}$$

(8)

$$\sin^2 x = \cos^2 x - 1 \rightarrow \sin^2 x = \frac{1}{r^2} - 1 \Rightarrow \sin x = \frac{\sqrt{r^2 - 1}}{r}$$

$$\frac{r \cos x}{- \tan x}$$

(9)

$$\tan x = -\sqrt{r} \rightarrow \cot x = \frac{1}{-\sqrt{r}} = -\frac{1}{\sqrt{r}}$$

$$\frac{3r}{2} - rB \rightarrow rA = \frac{3}{2}rB$$

$$\frac{SA}{SB} = \frac{\frac{1}{2}rB^2}{\frac{1}{2}rB^2} = \frac{1}{1}$$

(2) 1A

$$\sin 90^\circ = \frac{1}{1} \quad AD = r \quad \frac{SA}{SB} = \left(\frac{rA}{rB}\right)^2 = \left(\frac{4}{1}\right)$$

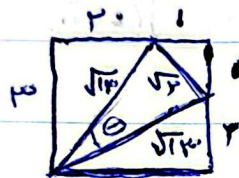
(4)

$$B = 90^\circ \Rightarrow AB^2 = BD^2 + AD^2 \rightarrow AB^2 = r^2 \Rightarrow AB = \sqrt{r^2}$$

(2)

$$S_{ABC} = \frac{1}{2} AB \times BC \times \sin 90^\circ = \sqrt{r^2} \Rightarrow 2 = r \quad \frac{\sqrt{r^2}}{r} \cdot 2 = r \Rightarrow AC = \sqrt{r^2}$$

$$\sin 120^\circ \cos 30^\circ \times 2 \rightarrow 2 \times \frac{1}{2} \times \frac{\sqrt{3}}{2} = \frac{\sqrt{3}}{2}$$



$$S = \frac{1}{2} r \times r = \frac{1}{2} \sin \theta (\sqrt{r^2})^2$$

(10)

$$\frac{1A}{13} = \sin \theta$$

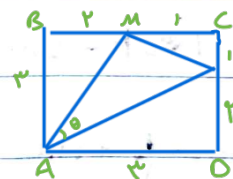
(1)

sin theta نى تولاى از يك بىر باء

$$AN = AM \rightarrow AM^2 = (AB)^2 + (BM)^2 = r^2 + r^2 = 13 \rightarrow AM = \sqrt{13}$$

$$S_{ADN} = S_{ABM} = \frac{r \times r}{2} = \frac{1}{2}, \quad S_{MCN} = \frac{1 \times 1}{2}$$

$$S_{ADN} + S_{ABM} + S_{MCN} + S_{AMN} = S_{ABCD} \rightarrow$$



$$\frac{1}{2} \times \sqrt{13} \times \sqrt{13} \times \sin \theta = \frac{9}{2}$$

$$\sin \theta = \frac{9}{13}$$

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