

۱۹ سوال

$$\frac{-\frac{\sqrt{r}}{r}(a) - \frac{\sqrt{r}}{r}(b)}{-\frac{1}{r}(a) + \frac{1}{r}(b)} = \frac{\frac{\sqrt{r}}{r}(a+b)}{\frac{1}{r}(a-b)} = -\frac{1}{\sqrt{r}} \rightarrow -ra - rb = a - b$$

$$-ra = rb$$

$$\frac{b}{a} = -r$$

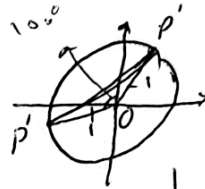
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$$\frac{1}{r} = \cos \frac{\pi}{4} \rightarrow \rho = \cos \frac{\pi}{4} = \left(\frac{1}{r}, \frac{\sqrt{r}}{r} \right)$$

$$\sin \frac{\pi}{4}$$

$$-210^\circ = -\frac{7}{4}\pi \rightarrow \frac{\pi}{3} - \frac{7}{4}\pi = -\frac{5}{4}\pi \rightarrow \rho'$$

$$c = \sqrt{a^2 + b^2 - 2ab \cos \theta} \rightarrow r \rightarrow r \cos \frac{5}{4}\pi \rightarrow \boxed{\rho = r + \sqrt{r} + \sqrt{r}}$$



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$$\frac{\pi}{4} \leftarrow \text{اساعت}$$

$$\frac{\pi}{3} \leftarrow \text{دقیقه} (=)$$

$$\boxed{2:40}$$

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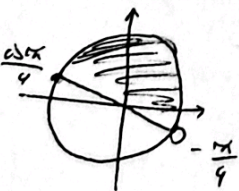
$$\left| \frac{11}{r} m - r_0 H \right| = r_0 \rightarrow H = r_0$$

$$\frac{11}{r} m - r_0 = r_0 \rightarrow \boxed{m = r_0}$$

$$\frac{11}{r} m + r_0 = r_0 \rightarrow m = \frac{r_0}{11} = 12, 72$$

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برای اولین بار

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$$\left| -\frac{1}{r} \sin \pi r \right| \rightarrow \left| -\frac{1}{r} \frac{m-r}{\pi} \right| \rightarrow -\frac{5}{r} m - r \pi$$

$$\rightarrow \frac{1}{r} m \pi \rightarrow \text{از ابتدا}$$

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$$\frac{\cos \alpha + k \sin \alpha}{-\cos \alpha - r \sin \alpha} \stackrel{= \cos \alpha}{\implies} \frac{1 - k \tan \alpha}{-1 - r \tan \alpha} = \frac{-1}{-1} \rightarrow 1 - \frac{k}{r} = -\frac{q}{r}$$

$$\boxed{k = r r}$$

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$$r + r \cos \alpha = 1 - \cos \alpha \rightarrow \cos \alpha = -\frac{1}{r} \rightarrow \sin \alpha = \frac{\sqrt{r^2 - 1}}{r}$$

$$\tan \alpha = -\frac{\sqrt{r^2 - 1}}{1}$$

$$\cot \alpha = -\frac{r}{\sqrt{r^2 - 1}}$$

$$\frac{\cot \alpha + \cot \alpha}{\tan \alpha - r \tan \alpha} = \frac{r \cot \alpha}{-\tan \alpha} = -\frac{r}{\tan^2 \alpha} = -\frac{r}{\frac{1}{r^2}} = \boxed{\frac{q}{r}}$$

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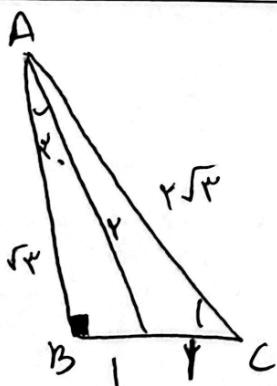


$$\frac{\frac{q}{r}}{\frac{1}{r}} \times A = \frac{\frac{q}{r}}{\frac{1}{r}} \times B \rightarrow \frac{A}{B} = \frac{r}{r}$$

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$$\hookrightarrow S_A = A \times A \times r \quad \hookrightarrow S_B = B \times B \times r \quad \left\{ \frac{S_A}{S_B} = \left(\frac{A}{B} \right)^r = \boxed{\frac{q}{r}} \right.$$

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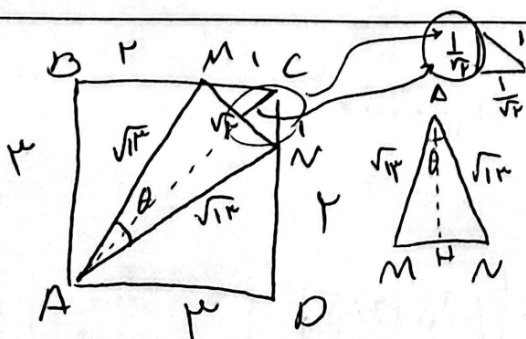


$$S_{ABC} = \frac{AB \times BC}{r} = \frac{\sqrt{r} \times 1}{r} = \frac{1}{\sqrt{r}}$$

$$\sin r \hat{C} = r \sin \hat{C} \times \cos \hat{C} = \frac{1}{r} \times \frac{1}{\sqrt{r}} = \boxed{\frac{\sqrt{r}}{r^2}}$$

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$$\rightarrow AH = AC - \frac{1}{\sqrt{r}} \rightarrow AC = r\sqrt{r}$$

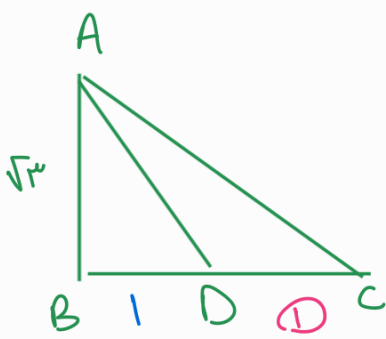
$$\hookrightarrow r\sqrt{r} - \frac{\sqrt{r}}{r} = \frac{\omega \sqrt{r}}{r} \cdot AH$$

$$\rightarrow \frac{1}{r} \times AH \times MN = \sin \theta \times AM \times AN \times \frac{1}{r}$$

$$\frac{\omega \sqrt{r}}{r} \times \sqrt{r} = \omega = \sin \theta \times r \quad \hookrightarrow \boxed{\sin \theta = \frac{\omega}{r}}$$

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$$S_{ABC} = \sqrt{r}$$

$$\frac{AB \times BC}{r} = \frac{\sqrt{r} \times DC}{r} = \sqrt{r} \rightarrow BC < r \rightarrow DC < 1$$

$$\rightarrow \sin \hat{rC} = r \times \frac{\sqrt{r}}{\sqrt{v}} \times \frac{r}{\sqrt{v}} = \frac{r\sqrt{r}}{v}$$