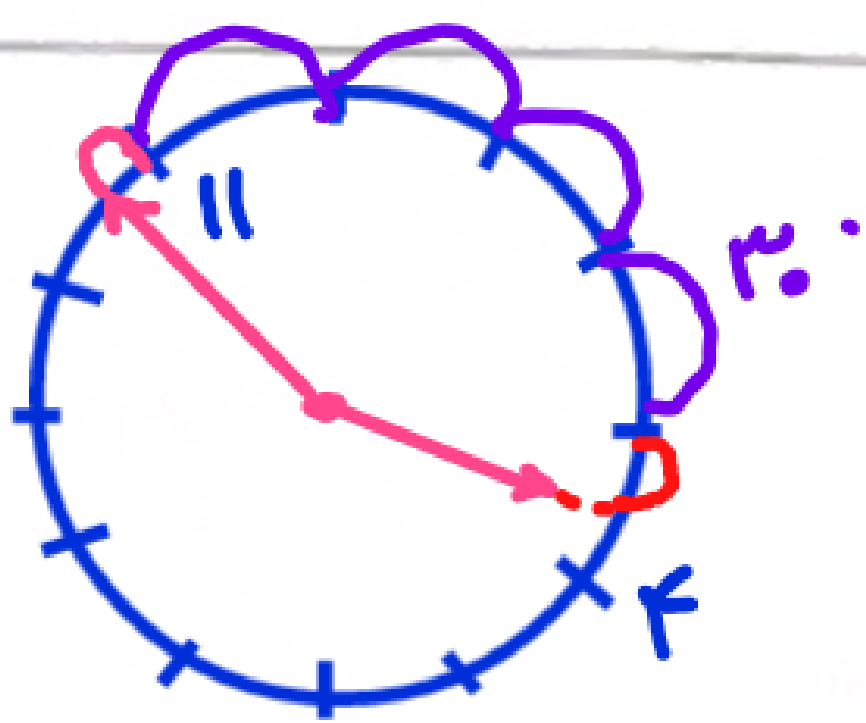


۱۴,۷۵

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۱۹... کلاس: دهه: A



$$f(r_0) + \frac{54}{r} + 4 = 153$$

الف)

(۵,۵)

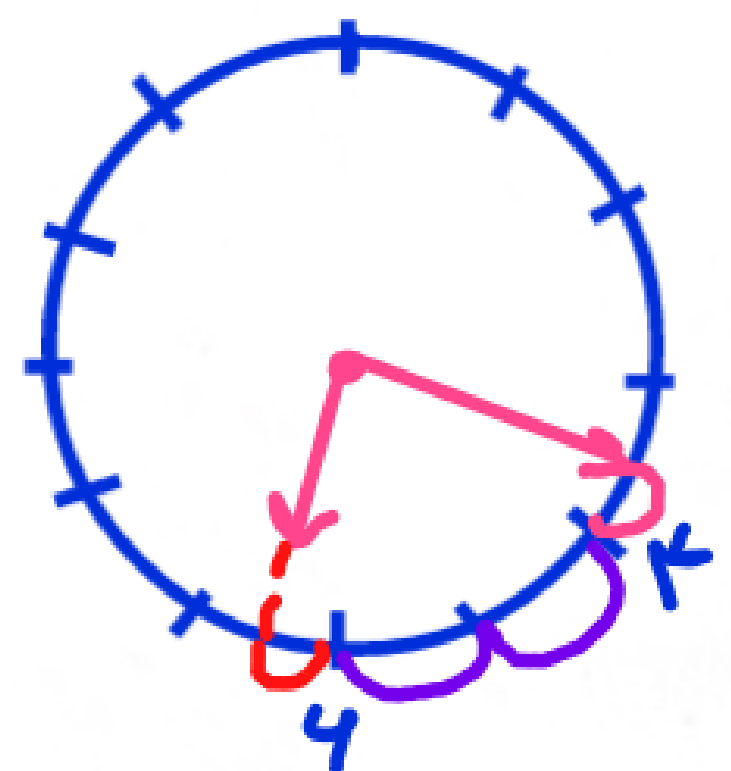
$$\alpha = |5.5m - 3.0h| \checkmark$$

$$\begin{array}{r} 29 \\ \times 54 \\ \hline 116 \\ 2610 \\ \hline 1566 \end{array}$$

$$3.0 \times 2 = 6.0$$

$$2.07$$

$$\alpha = 34.0 - 2.07 = 153$$



$$f(r_0) + 12 + \frac{18}{r} = 81$$

الف)

(۵,۵)

$$\begin{array}{r} 99 \\ \times 54 \\ \hline 495 \\ 4950 \\ \hline 5346 \end{array}$$

$$99$$

$$4.5 \times 4 = 18.0$$

دقت!

$$99 - 18.0 = 81$$

$$\frac{\pi}{4} \times 9 = \frac{\pi}{12} \times 9 = \frac{9\pi}{12} \checkmark$$

الف)

(۲)

$$\frac{\pi}{2} \times 9 = \frac{\pi}{12} \times 9 = \frac{9\pi}{12} \checkmark$$

$$\frac{1}{r} \times 54 \times r \times \frac{\sqrt{2}}{r} = 10\sqrt{2} \checkmark$$

الف)

(۲)

$$V + 5 + 8 = 20 \checkmark$$

$$CB = \sqrt{5^2 + 8^2 - 4 \times 5 \times 8 \times \frac{1}{4}} = \sqrt{49} = 7 \checkmark$$

ب)

۴

$$\frac{1}{r} = \frac{10\sqrt{2}}{\sin B} = \frac{BA}{\sin C}$$

$$\sin B = \frac{10\sqrt{2}}{r} = \frac{\sqrt{2}}{r}$$

$$B = 45^\circ \rightarrow \frac{\pi}{4} \checkmark$$

$$C = 1.5 \rightarrow \frac{V\pi}{12} \checkmark$$

$$\frac{V\pi}{12} + \frac{3\pi}{12} = \frac{1.5\pi}{12} \rightarrow \frac{5\pi}{4}$$

(۲)

۵

$$\frac{-\tan \alpha + 3 \tan \alpha}{-\tan \alpha - \tan \alpha} = \frac{2 \tan \alpha}{-2 \tan \alpha} = -1 \quad \boxed{-1}$$

به صورت سوالات توجه کن!

(1, 7, 9)

6

$$a = \tan 15^\circ$$

$$\frac{r \tan 45^\circ + \tan 15^\circ}{3 \tan 45^\circ - \tan 15^\circ}$$

وقت!

$$\rightarrow \frac{r \times \frac{1}{a} - \frac{1}{a}}{3(-a) - \frac{1}{a}} = \frac{\frac{1}{a}}{-(3a + \frac{1}{a})} = \frac{-1}{3a^2 + 1}$$

(1, 7, 9)

7

$$\frac{\sin x + \cos x}{\sin x - \cos x} + \frac{\sin x - \cos x}{\sin x + \cos x}$$

$$\rightarrow \frac{2}{\sin^2 x - \cos^2 x} = \frac{2}{-(\cos^2 x)} = -\frac{2}{\cos^2 x}$$

$$(\sin + \cos)^2 + (\sin - \cos)^2 = 2 \quad 1 - \cos^2 x$$

$$\frac{2}{1 - 2 \cos^2 x} = 2 - \cos^2 x = \frac{1}{\tan^2 x} \rightarrow 1 + \tan^2 x = \frac{1}{\cos^2 x} \rightarrow \tan^2 x = \boxed{5}$$

(1, 7, 9)

8

این عدد 2 بوده چه 2 فاکتور؟!

$$\frac{\sin^2 x - r \cos^2 x + 1}{\sin^2 x + r \cos^2 x - 1} = 2$$

$$\frac{r t - r + 1}{r - 1} = 2$$

$$r t - r + 1 = 2r - 2 \Rightarrow r t = 2r - 3$$

$$\tan^2 x = \frac{2(r-1)}{r} = \frac{5}{2} \quad \checkmark$$

(2)

9

$$\cos 210^\circ = \cos \frac{40^\circ}{2} = \sqrt{\frac{1 + \cos 80^\circ}{2}} = \sqrt{\frac{1 + \frac{\sqrt{2}}{2}}{2}} = \sqrt{\frac{2 + \sqrt{2}}{2}} \quad \checkmark$$

$$\sin 47.5^\circ = \sqrt{\frac{2 + \sqrt{2}}{2}} \quad \checkmark$$

را مصل!

(1, 12, 13)

10