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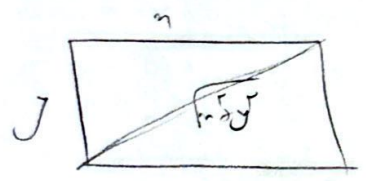
$$\frac{k}{y} = \frac{a}{r} \quad \frac{n+a}{y} = \frac{\sqrt{n+1}}{r}$$

$$\frac{\frac{n}{y}}{\frac{n+a}{y}} = \frac{n}{n+a} = \frac{\frac{a}{r} \times \frac{r}{\sqrt{n+1}}}{\frac{r}{\sqrt{n+1}}} = \frac{a}{\sqrt{n+1}}$$

$$\frac{n+a}{n} = \frac{\sqrt{n+1}}{a}$$

$$\frac{s'}{s} = \frac{(n+a)y}{ny} = \frac{\sqrt{n+1}}{a}$$

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$$\frac{\sqrt{n^2 + y^2}}{n} = \frac{\sqrt{n+1}}{r} \quad ()^2 \quad \frac{n^2 + y^2}{n^2} = \frac{n+1}{r^2}$$

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$$1 + \frac{y^2}{n^2} = \frac{n+1}{r^2}$$

$$\frac{y^2}{n^2} = \frac{n+1}{r^2} - 1 = \frac{1+n}{r^2} \rightarrow \frac{n^2}{y^2} = \left(\frac{r}{1+n}\right)^2 = \frac{r}{1+n}$$

$$ra = \sqrt{ra^2 + r^2} = r$$

$$\sqrt{ra^2 + r^2} = r - ra \quad ()^2 \quad ra^2 + r^2 = 9a^2 + r^2 - 12a$$

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$$ra^2 - 12a + r^2 = 0$$

$$a^2 - 12a + 12 = 0$$

$$(a-2)(a-12) = 0$$

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$$a = \frac{r}{\sqrt{3}} \quad a = 2$$

$$\frac{n+1}{a} = \frac{\frac{r}{\sqrt{3}} + \frac{r}{\sqrt{3}}}{\frac{r}{\sqrt{3}}} = \frac{9}{\sqrt{3}}$$

$$\sqrt{n+1} \left(\frac{1}{\sqrt{n-1}+3} + \frac{1}{\sqrt{n-1}-3} \right) = \sqrt{n-1}$$

$$\sqrt{n+1} \left(\frac{2\sqrt{n-1}}{n-1-9} \right) = \sqrt{n-1}$$

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$$\frac{2\sqrt{n-1}}{n-10} = 1$$

$$2\sqrt{n-1} = n-10 \quad ()^2 \quad 4(n-1) = n^2 - 20n + 100$$

$$n^2 - 22n + 96 = 0$$

$$n = 12 \pm \sqrt{12}$$

$$n = 12 - \sqrt{12} \rightarrow n > 1$$

١: n > 1 بل قبلين نيتيزا نتويج را منفي نه
بس كه رجبس نه داره.

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$$\frac{1}{\sqrt{r-n}+r} + \frac{1}{\sqrt{r-n}-r} = \frac{\sqrt{r-n}}{a} \quad (n \neq r)$$

$$\frac{r\sqrt{r-n} + \sqrt{r-n} - r}{r-n-r} = \frac{r\sqrt{r-n}}{-n-r} = \frac{\sqrt{r-n}}{a}$$

1. $-n-r$ $n=-r$
 2. $n=-r$ $n=-r$

$$\frac{n^2 - r^2 + 1 + n^2}{n^2(n^2 - r^2 + 1)} = \frac{17}{9}$$

$$\frac{r^2 - r^2 + 1}{n^2 - r^2 + n^2} = \frac{r^2 - r^2 + 1}{(n^2 - r^2)^2} = \frac{r^2(n^2 - r^2) + 1}{(n^2 - r^2)^2}$$

$$\frac{r^2 + 1}{r^2} = \frac{17}{9}$$

$$17 \cdot r^2 = 17r^2 + 9 \quad 17 \cdot r^2 - 17r^2 - 9 = 0 \quad r^2 - 17r^2 - 9 \times 17 = 0$$

$$(t^2 - r^2)(t^2 + r^2) = 0$$

$$t = \frac{r}{17} = \frac{r}{17} = n^2 - n$$

$$t = \frac{-r}{17} = -\frac{r}{17} = n^2 - n$$

$$1. n^2 - n - r = 0 \rightarrow S=1$$

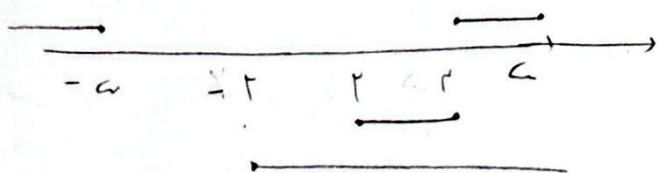
$$17n^2 - 17n + r = 0 \rightarrow S=1$$

$$\sqrt{n + \sqrt{-n^2(n-r) + r^2(n-r)}} + \sqrt{n + \sqrt{-(n-r)(n-r)}} = n + r$$

$$\sqrt{n + \sqrt{(n-r)(r^2 - n^2)}} + \sqrt{n + \sqrt{-(n-r)(n-r)}}$$

$$\frac{-a}{+} \frac{r}{-} \frac{a}{+}$$

$$\frac{r}{-} \frac{r}{+}$$



نکته: $x=r$ ✓

پس جواب

$$y = \frac{-n+16}{r}$$

$$A \mid r \quad B \mid -r$$

$$AB = \sqrt{r^2 + r^2} = \sqrt{r^2}$$

$$\begin{array}{|l} -n-r-n+1 \\ = \frac{-n+16}{r} \\ -4n-r = -n+16 \\ 3n = -r \quad n = -r/3 \end{array} \quad \begin{array}{|l} r^2 - n^2 + 1 = \frac{-n+16}{r} \\ -n+16 = 9 \\ n = 7 \end{array} \quad \begin{array}{|l} n+r+n-1 = \frac{-n+16}{r} \\ r^2 + 1 = \frac{-n+16}{r} \\ 4n+r = -n+16 \\ 5n+16 = 0 \quad n = -16/5 \end{array}$$

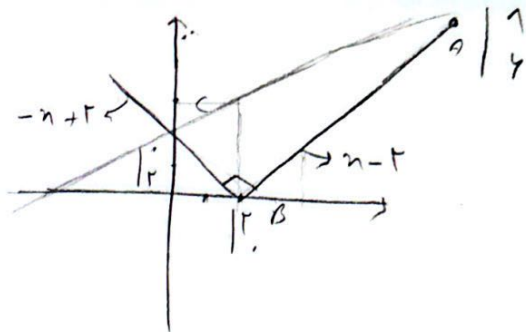
$$y = \frac{1}{r}n + r$$

$$y = |n - r|$$

$$n - r = \frac{1}{r}n + r$$

$$\frac{n}{r} = r \quad n = r^2$$

$$y = r$$



$$BC = 2\sqrt{r}$$

$$AB = 4\sqrt{r}$$

$$S = \frac{AB \times BC}{2} = \frac{4\sqrt{r} \times 2\sqrt{r}}{2} = 4r$$

$$b = f - 9$$

$$f = b + 9$$

$$\frac{1}{b} + \frac{1}{b+9} = \frac{1}{r}$$

-1.

$$\frac{2b+9}{b^2+9b} = \frac{1}{r}$$

$$r \cdot b + 9 = b^2 + 9b$$

$$b^2 - r b - 9 = 0$$

$$(b - 36)(b + 9) = 0$$

$$b = 36$$

بروز در ۳۶ سالگی

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