

بدره بدون اسم - صیف

Subject

Date

$$(1) \frac{x}{y} = \frac{5}{12} \Rightarrow y = \frac{12x}{5} \Rightarrow \frac{5}{12} = \frac{12x}{5} \Rightarrow x = \frac{25}{144}$$

(2)

$$\frac{x+a}{y} = \frac{5(x+a)}{12x} = \frac{\sqrt{5}+1}{2} = \frac{(\sqrt{5}+1) \cdot 12x}{25} \Rightarrow \frac{5}{12} = \frac{(\sqrt{5}+1)12x}{25}$$

$$\Rightarrow \frac{5_2}{5_5} = \frac{12(\sqrt{5}+1)}{25} \checkmark$$

(2)

$$(2) \sqrt{x^2+y^2} = \text{مقدار معلوم} \Rightarrow \frac{\sqrt{x^2+y^2}}{x} = \frac{\sqrt{5}+1}{2} \Rightarrow \frac{x^2+y^2}{x^2} = \frac{5+2\sqrt{5}+1}{4} = \frac{6+2\sqrt{5}}{4}$$

$$\Rightarrow 1 + \frac{y^2}{x^2} = \frac{3+\sqrt{5}}{2} \Rightarrow \frac{y^2}{x^2} = \frac{1+\sqrt{5}}{2} \Rightarrow \frac{x^2}{y^2} = \frac{2}{1+\sqrt{5}} \checkmark$$

$$(3) (3a-2) = -\sqrt{2a^2+4a} \Rightarrow (3a-2)^2 = 2a^2+4a \quad (1,5)$$

$$9a^2-12a+4 = 2a^2+4a \Rightarrow 7a^2-16a+4=0$$

فروانه سوال!

ارائه: ۱۰. نغز فوق حد (2) و $a = \frac{2}{7} \checkmark$

$$a = \frac{2}{7} \Rightarrow \frac{a+1}{a} = \frac{9}{2} = 4,5$$

عبارت را در مخرج

$$\Rightarrow -2\sqrt{n-1} \sqrt{n+1} = \sqrt{n-1} (10-n)$$

(1,5)

مشترک را ضرب کنیم

جواب را بیاب!

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

$$n^2-24n+96=0 \Rightarrow n = \frac{24 \pm \sqrt{24^2-4 \cdot 96}}{2} \Rightarrow 12 \pm 4\sqrt{2} \Rightarrow 12+4\sqrt{2} \text{ و } 12-4\sqrt{2}$$

هر دو + اند. وقت!

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$$(1) \quad \frac{1}{t+r} - \frac{1}{r-t} = \frac{t^r}{\Delta t} \Rightarrow \frac{r-t-t-r}{r-t^r} = \frac{t^r}{\Delta t}$$

$$\frac{-r-t}{r-t^r} = \frac{t^r}{\Delta t} \Rightarrow \frac{-r-t}{r-t^r} = \frac{t}{\Delta t} \Rightarrow \frac{-r}{r-t^r} = \frac{1}{\Delta t} \quad (2)$$

$$\Rightarrow -10 = r-t^r \Rightarrow t^r = 1^r \Rightarrow t = \pm \sqrt[1^r]{1^r} = r-n = \pm 1^r$$

$n = -1^r \Rightarrow$ ~~موجب~~ ^{موجب} _{دائم}

$$(3) \quad n^t (1-n)^t \left(\frac{1}{n^r} + \frac{1}{(1-n)^r} \right) = \frac{170}{9} \Rightarrow (1-n)^t \cdot n^t = \frac{170}{9} n^t (1-n)^t$$

$$1 - t n + n^t + n^t = \frac{170}{9} (n(1-n))^t \Rightarrow 1 - t n + t n^t = \frac{170}{9} (n - n^t)^t \quad (2)$$

$$1 - t(n^t - n) = \frac{170}{9} (n^t - n)^t \xrightarrow{t=n^t-n} 1 - t t = \frac{170}{9} t^t$$

$$\Rightarrow t = \frac{170}{170} = \frac{170}{170} \Rightarrow n^t - n = \frac{170}{170} \rightarrow s = 170 \quad (3) \checkmark$$

$n^t - n = \frac{170}{170} \rightarrow s = 1$

① $-n^2 + 7n - 1 > 0 \Rightarrow \frac{-7 \pm \sqrt{49 - 4}}{-2} = \frac{-7 \pm \sqrt{45}}{-2}$ اشتراک = ۳

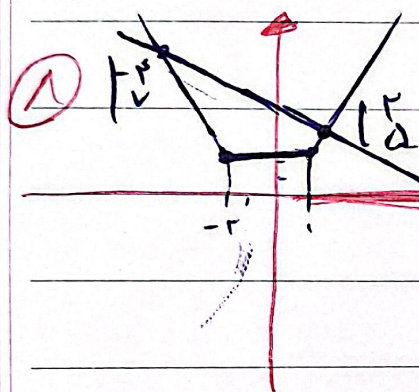
$-n^3 + 4n^2 + 10n - 100 > 0 \Rightarrow \frac{-10 \pm \sqrt{100 - 400}}{-3} = \frac{-10 \pm \sqrt{-300}}{-3}$

②

یک ریشه دارد و آن هم ۷ است ④ ✓

$\sqrt{4} + \sqrt{16} = 2 + 4 = 6$

$4 + 2 = 6$



$\Rightarrow n + 2 + n - 1 = 2n + 1 = \frac{16 - n}{n}$

$\Rightarrow 2n + 2 = 16 - n$

$\Rightarrow 3n = 14 \Rightarrow \boxed{n = \frac{14}{3}}$

③

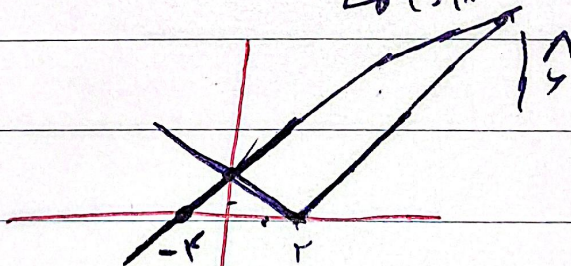
$-n + 2 - n + 1 = -2n - 1 = \frac{16 - n}{n} \Rightarrow -2n - 2 = 16 - n$

$\Rightarrow \sqrt{(2+4)^2 + (16-4)^2} = \sqrt{36 + 144} = \sqrt{180} = 6\sqrt{5}$

$\Rightarrow \boxed{n = -4}$
 $\boxed{y = 4}$

⑨ $y = \frac{n}{2} + 2$

$y = |n - 2|$



④

$2 - (-4) = 6 \Rightarrow \frac{6 \times 2}{2} = 6$

$\frac{4 \times 4}{2} = 8$

$18 - 6 = 12$ ✓

$\frac{1}{n} + \frac{1}{n+9} = \frac{1}{20} \rightarrow \boxed{n = 34}$