



Фиксация санитарных выходов:

1 выход:		возвращение:	
2 выход:		возвращение:	
3 выход:		возвращение:	
4 выход:		возвращение:	
5 выход:		возвращение:	

Время окончания: 15 30

Всего листов: 4

n1

$$a_1^2 + a_2^2 + a_{116}^2 = 144 = 12^2$$

$$a_1 \cdot a_1 + a_2 \cdot a_2 + \dots + a_{116} \cdot a_{116} = 12^2 = (1+1)^2$$

$$a_1 + a_2 + \dots + a_{116} < (a_1 + a_2 + \dots + a_{116})^2$$

$$a_1 \cdot a_2 \cdot a_3 \dots a_{116} = \text{X}$$

$$(a_1 + a_2)^2 - a_1 \cdot a_2 + (a_3 + a_4)^2 - a_3 \cdot a_4 + \dots + (a_{115} + a_{116})^2 - a_{115} \cdot a_{116} = 12^2$$

$a < 12$

$$a_1^2 + a_2^2 + \dots + a_{116}^2 = 12^2$$

Если $a > 1$ Нет $a > 12$ Если $a < 1$

$4 + 1 \cdot 115 = 119$
 $8 + 1 \cdot 114 = 126$
 $3^2 + 135 = 126$

$116 = 2 \cdot 58$
 Если $57 + 118 = 107$
 ~~$89 + 34 = 133$~~

$2 \cdot 59 = 118$
 $17 \cdot 2 = 34$
 $18 \cdot 2 = 36$
 $21 \cdot 2 = 42$

$98 + 26 \cdot 2 = 90 + 52$
 $89 + 27 \cdot 2 = 89 + 54 = 143$
 ~~$88 + 28 \cdot 2 = 88 + 56$~~

$499 + 17 \cdot 4 =$

$$\begin{array}{r} 144 \\ -107 \\ \hline 35 \\ 35 \cdot 2 \\ \hline 70 \\ 107 + 35 = \\ \hline 142 \\ \hline 144 \\ -107 \\ \hline 35 \end{array}$$

$$\begin{array}{r} 144 \\ -9 \\ \hline 135 \end{array}$$

$$\begin{array}{r} 89 \\ +54 \\ \hline 143 \end{array}$$

$$\begin{array}{r} 89 \\ +56 \\ \hline 145 \end{array}$$

$$\begin{array}{r} 17 \\ +4 \\ \hline 21 \end{array}$$

$$12^2 = 1 \cdot 107 + \overset{144}{-107} \underset{37}{37}$$

$$x \leq 37$$

$$x = a^2 + b^2 + c^2 + \dots$$

$$a^2 + b^2 + c^2 + \dots = x^2 = 144$$

$$x = 37 \quad c = 9$$

$$u^2 = 16 \quad 21$$

$$y \cdot 4 + (9-y)9 = 37$$

$$4y + 81 - 9y = 37$$

$$y \cdot 4 + (8-y)9 = 36$$

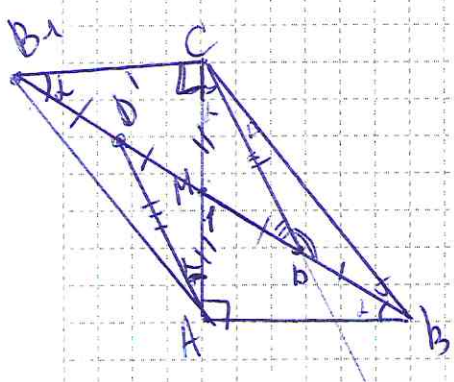
$$y \cdot 4 + (7-y)9 = 36$$

$$-5y = -44$$

$$L = 180^\circ - 90 - 90 +$$

$$\frac{81}{37}$$

$$\frac{44}{44}$$



$$\beta + \gamma = 90 - 2L = \dots$$

$$\alpha = 180 - 90 + 2L = 90 + 2L$$

$$\alpha = 180 - 90 - 2L = 90 - 2L$$

$$4y + (8-y)9 = 36$$

$$4y + 72 - 9y = 36$$

$$36 = 5y \quad \frac{72}{36}$$

$$L = 90 - L1 = 180 - 90 + 2d - 180 + L1 =$$

$$90 - L1 = -90 + 2d + L1$$

$$180 - L1 = 2d + L1$$

$$180 = 2(d + L1)$$

$$4y + (7-y)9 = 35$$

$$4y + 63 - 9y = 35$$

$$4y + (6-y)9 = 34$$

$$4y + 54 - 9y = 34$$

$$20 = 5y$$

$$y = 4$$

$$L = 90 - L1 = 180 - 90 + 2d - 180 + L1$$

$$90 - L1 = -90$$

$$L = -90 + 180 - 2L1 + L1$$

$$L = 90 - L1$$

$$2^2 \cdot 4 + 2 \cdot 3^2 = 34$$

$$4y + (5-y)9 = 33$$

$$4y + 45 - 9y = 33$$

$$4y + (4-y)9 = 32$$

$$4y + 36 - 9y = 32$$

$$4y + (3-y)9 = 31$$

$$4y + 27 - 9y = 31$$

$$4y + (2-y)9 = 30$$

$$4y + 18 - 9y = 30$$

$$4y + (1-y)9 = 30$$

$$4y + 9 - 9y = 30$$

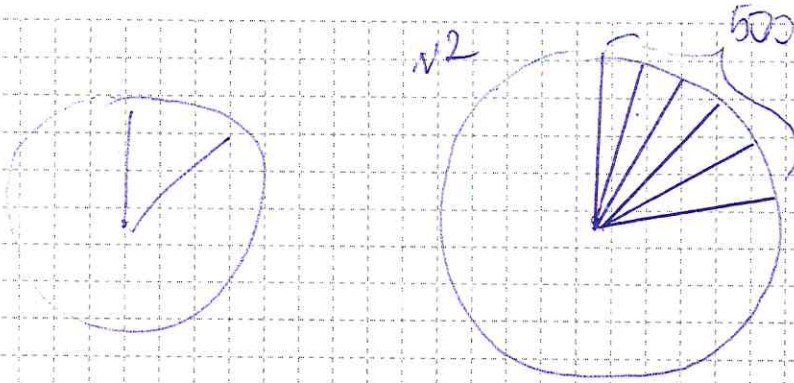
$$a_1^2 + a_2^2 + \dots + a_{116}^2 = 12^2$$

107 = 1

~~107 = 1~~

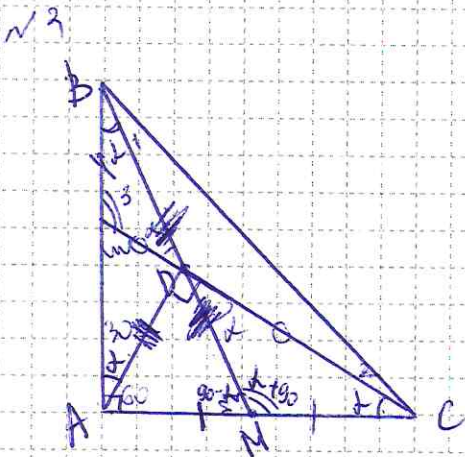
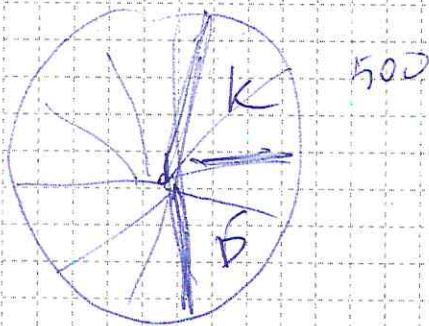
$$2^2 + 2^2 + 2^2 + 2^2 + 3^2 + 3^2$$

$$4y + 9 - 9y = 30$$



$b \rightarrow k$
 $k > b$

Не нарисовалось, т.к. было 250 к. и 250 д. в этой 500ке



$$\begin{aligned} \angle 1 + \angle 2 &= 90^\circ - \angle 2 \\ \angle d &= 180^\circ - 90^\circ + 2\alpha - \angle 3 = 90^\circ + 2\alpha - \angle 3 \\ \angle 2 &= 90^\circ - 180^\circ + \angle 3 \\ 90^\circ + 2\alpha - \angle 3 &= 90^\circ - 180^\circ + \angle 3 \\ + 2\alpha - \angle 3 &= -180^\circ + \angle 3 \\ 2\alpha - 2\angle 3 &= -180^\circ \\ 2(\alpha - \angle 3) &= -180^\circ \\ \alpha - \angle 3 &= -90^\circ \\ \alpha + 90^\circ &= \angle 3 \end{aligned}$$

$$180^\circ - 90^\circ + \alpha - \angle 2 = 90^\circ - 2\alpha$$

$$90^\circ - \angle 2$$

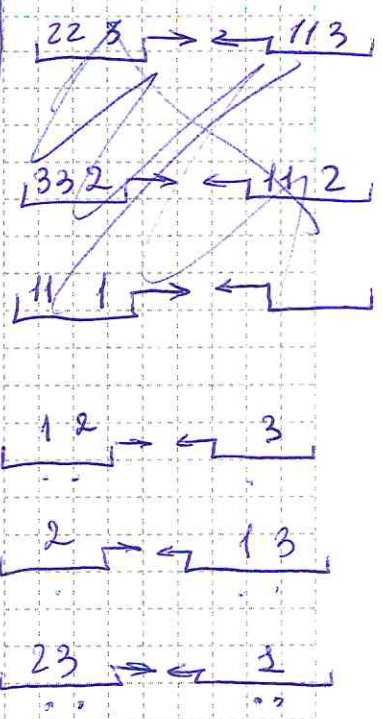
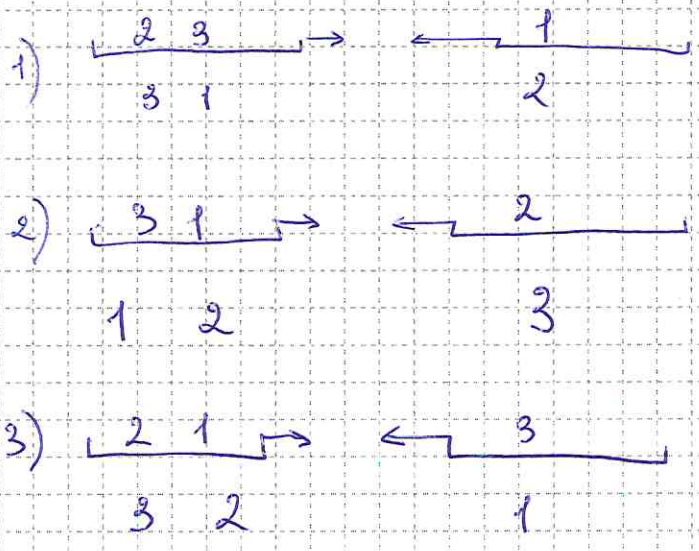
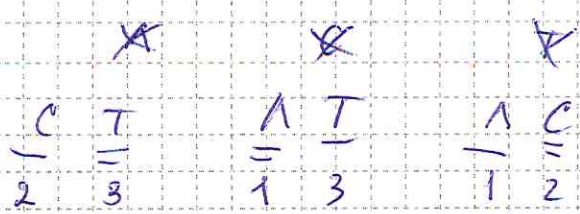
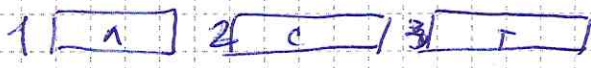
$$180^\circ - 90^\circ + \alpha - \angle 2 = 90^\circ$$

$$180^\circ - \angle 2 - 90^\circ = 90^\circ - \angle 2$$

№4

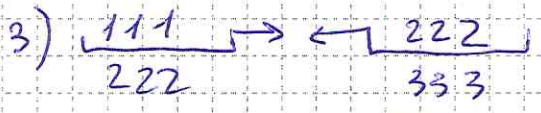
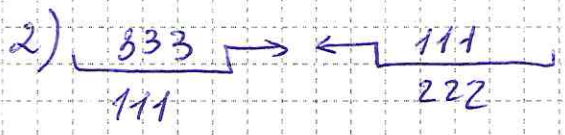
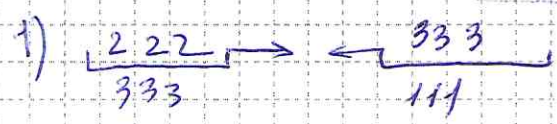
99 момент

- (99) A - 12
- (55) C - 22
- (99) T - 31



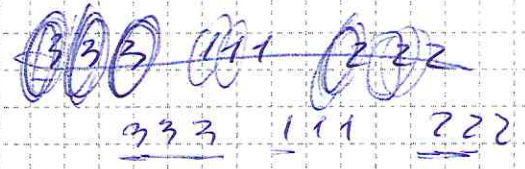
bezraznaya

I) 12

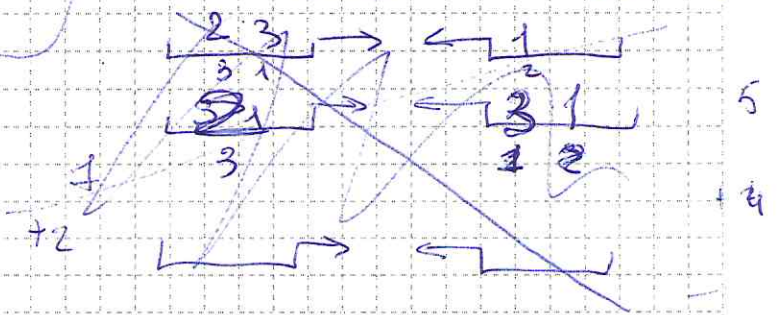
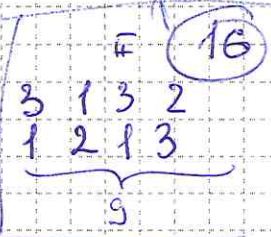


93 96 : 6

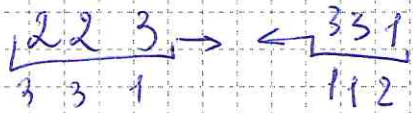
96 = 6 · 16



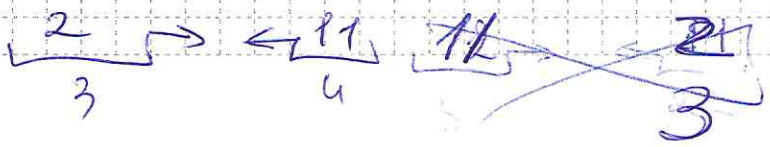
- 1) 2 1 1
- 2) 3 2 2



- 1) 1 2 3 3 1 2 3 12
- 2) 2 3 1 1



- 1) 3 2 1 1 1 1
- 1 3 2 1 2 2



1 Л 2 С 3 Т

333
811 220 235

$\frac{С}{2} \frac{T}{3}$ $\frac{Л}{1} \frac{T}{3}$ $\frac{Л}{1} \frac{С}{2}$
~~С~~ ~~Т~~ ~~Л~~
~~Т~~ ~~Л~~ ~~С~~
~~2~~ 3 1 3 3
~~2~~

$\frac{22}{33} \rightarrow \leftarrow \frac{132}{213}$
 $\frac{31}{12} \rightarrow \leftarrow \frac{21}{12}$

3 1 2 3
1 2 3 1

99 - 6 = 594

$\frac{594}{2} = 297$
 $\frac{594}{19} = 31$
 $\frac{594}{18} = 33$
 $\frac{594}{14} = 42$
 $\frac{594}{6} = 99$

98 = 49 · 2

~~49n 50c~~ ~~50n 49c~~
33n 66T 66n 33T

$\frac{49n 50c}{49T} \rightarrow \leftarrow \frac{50n 49c}{50T}$

50c 35n 66T 64n 33T 46c

$1) 50 \cdot 3 + 35 \cdot 2 + 66 \cdot 1$
 $\frac{150}{3} \quad 70 \quad 66$

$64 \cdot 2 + 33 \cdot 1 + 49 \cdot 3$
 $\frac{128}{33} \quad \frac{33}{30} \quad \frac{147}{30}$

~~49 · 2 + 50 · 3 + 49 · 1~~
50

~~50 · 2 + 49 · 3 + 50 · 1~~
49 1 146

158

~~49 · 3 + 50 · 1 + 49 · 2~~
49

~~50 · 3 + 49 · 1 + 50 · 2~~
100

200

$\frac{2}{49} \cdot 3$
 $\frac{147}{3}$

$\frac{3}{49} \cdot 4$
 $\frac{196}{49}$

49n 50c 50T 50n 49c 49T

$\frac{2}{64} \cdot 3$
 $\frac{192}{64}$

~~49 · 2 + 50 · 3 + 50 · 1~~
49 50 50

~~50 · 2 + 49 · 3 + 49 · 1~~
49 · 2

52c 35n 66T 47c 64n
52 · 1 35 · 3 66 · 2 33 · 1

53c 35n 66T 46c 64n 33T

$53 \cdot 1 + 35 \cdot 3 + 66 \cdot 2$ $46 \cdot 1$ $64 \cdot 3$ $33 \cdot 2$
53 105 132 46 192 66

$\frac{6}{7}$

$\frac{47}{64} \cdot 3$
 $\frac{33 \cdot 2}{64}$

52 106 192

47 192
~~60~~
8

66 T A C

$\begin{array}{r} 99 \\ \times 3 \\ \hline 297 \end{array}$

$$x \cdot 2 + y \cdot 3 + z \cdot 1 = (99 - x) \cdot 2 + (99 - y) \cdot 3 + (99 - z)$$

$$2x + 3y + z = 198 - 2x + 297 - 3y + 99 - z$$

$$4x + 6y + 2z = 594$$

$$2x + 3y + z = 297$$

$\begin{array}{r} 198 \\ + 297 \\ \hline 99 \\ \hline 594 \end{array}$

$$2x + 3y + z = 3x + 4y + 2z$$

33

$2y = x + z$ (circled) $z = 297 - 2x - 3y$ (circled)

$$2y = x + 297 - 2x - 3y$$

5y

$$5y + x = 297$$
 (circled)

$$297 - 5y = 2y - z$$

$$297 = 7y - z$$
 (circled)

350

$$5y + x = 7y - z$$

$47 \wedge 50 \circ 53 \top \rightarrow \leftarrow 52 \wedge 49 \circ 46 \top$

$\begin{array}{r} 2 \\ 47 \\ \times 3 \\ \hline 141 \end{array}$

1) $47 \cdot 2 + 50 \cdot 3 + 53 \cdot 1 = 52 \cdot 2 + 49 \cdot 3 + 46 \cdot 1$
 $94 \quad 150 \quad 53 \quad 104 \quad 147 \quad 46$
 $\quad \quad 46$

$\begin{array}{r} 52 \\ \times 3 \\ \hline 156 \end{array}$

2) $47 \cdot 3 + 50 \cdot 1 + 53 \cdot 2 = 52 \cdot 3 + 49 \cdot 1 + 46 \cdot 2$
 $141 \quad 50 \quad 106 \quad 156 \quad 49 \quad 92$
 $\quad \quad 1$
 $\quad \quad 50$

N5

$a = 1094$

$b = 545$

$2 + 545 = 547$

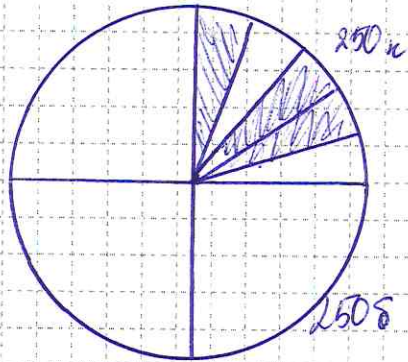
$$\begin{array}{r} \times 547 \\ 1094 \end{array}$$

p - простое
 $a = p_1 p_2$

1094

547

N2



17 12 13 15 17 11 13
 19 23

2... 23

$$\begin{array}{r} \times 23 \\ 46 \\ \hline 529 \end{array}$$

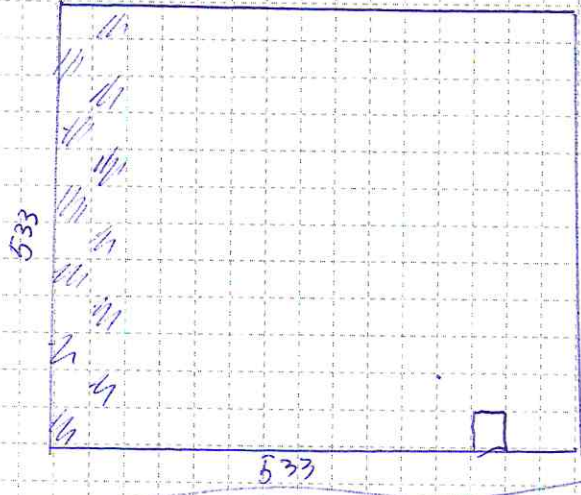
$$\begin{array}{r} \times 23 \\ 49 \\ \hline 529 \end{array}$$

$$\begin{array}{r} 547 / 13 \\ 52 \\ \hline 274 \end{array}$$

$$\begin{array}{r} 547 / 17 \\ 51 \\ \hline 37 \end{array}$$

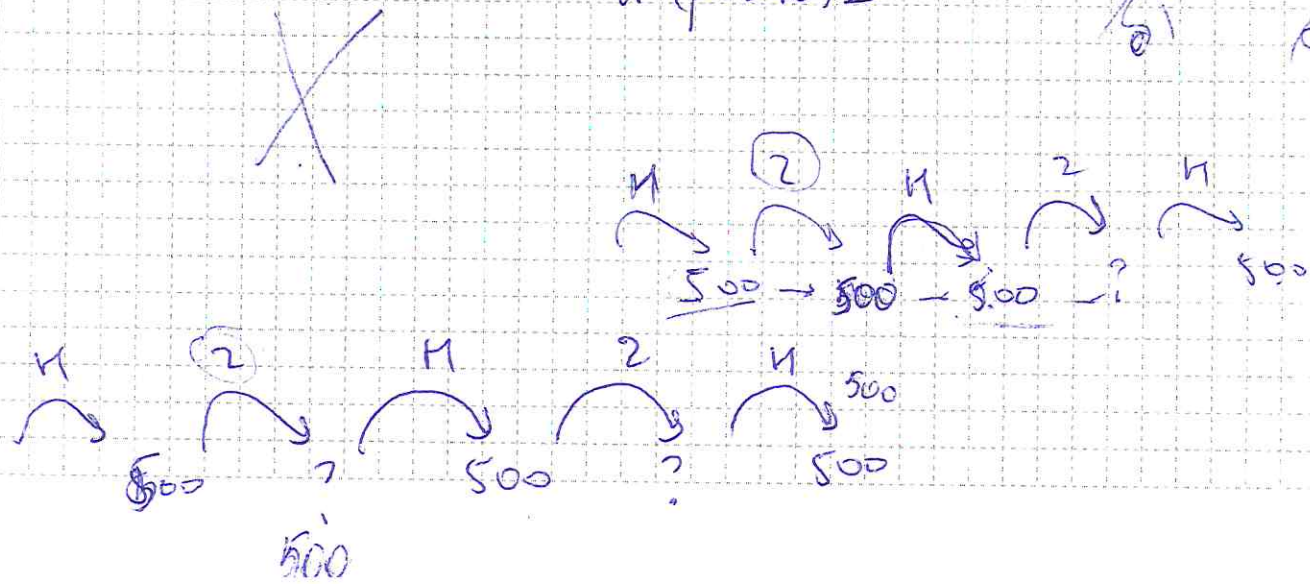
$$\begin{array}{r} 547 / 19 \\ 38 \\ \hline 167 \end{array}$$

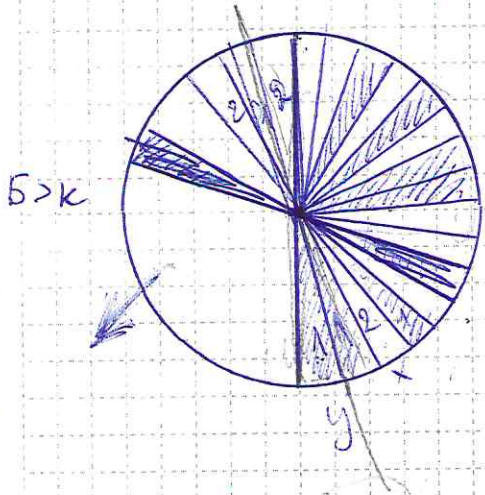
$$\begin{array}{r} 547 / 23 \\ 48 \\ \hline 87 \end{array}$$

$$\begin{array}{r} \times 19 \\ 8 \\ \hline 162 \end{array}$$


$a = p_1 p_2 p_3$

$a = (p + 545)b$





250к 250б

Пусть мы "отрезали" x к и y б
Тогда в новой 500:

$B: 250 - x + y$

$K: 250 - y + x$

~~$250x + y + 250y + x =$~~

