

Стандартизация учителя информатики, Демон 3.
Иванова Н.П., МБОУ СОШ № 51

ЕГЭ 9-1

N1

| | |
|---------------------|--|
| 42 Мб | ? Мб |
| $a \cdot b \cdot i$ | $\frac{a}{2} \cdot \frac{b}{2} \cdot 4i$ |

$$a \cdot b \cdot i = 42 \text{ Мб}$$

$$\frac{a}{2} \cdot \frac{b}{2} \cdot 4i = a \cdot b \cdot i = 42 \text{ (Мб)}$$

Ответ: 42 Мб

N2.

| | |
|---------------------|---------------------------------|
| 72 · v | 35 · t |
| $a \cdot b \cdot i$ | $2a \cdot 2b \cdot \frac{i}{3}$ |

$$72v = a \cdot b \cdot i$$

$$\frac{a \cdot b \cdot i}{v} = 72$$

$$2a \cdot 2b \cdot \frac{i}{3} = 35 \cdot t$$

$$3t = \frac{4}{3} \cdot \frac{a \cdot b \cdot i}{v}$$

$$3t = \frac{4}{3} \cdot 72$$

$$3t = 4 \cdot 24$$

$$t = 32$$

Ответ: 32

N3.

| | | |
|------------------------------|---------------------------|--|
| $a \cdot b = 1280 \cdot 960$ | $N = 2^i$ | $i = \frac{160 \cdot 2^{13}}{1280 \cdot 960} = \frac{1024 \cdot 8}{1280 \cdot 6} = \frac{1024}{160 \cdot 6} = \frac{64}{60} \approx 1$ |
| $I = 160 \text{ Кб}$ | $i = \frac{I}{a \cdot b}$ | |
| $N = ?$ | | $N = 2^1 = 2$ |

Ответ: 2

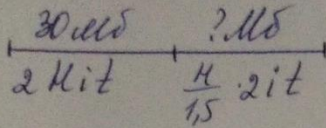
N4

| | |
|--|--|
| $i = 24 \text{ бит}$ | $i = ?$ $N = ?$ |
| 3 Мб | 128 Кб |
| $300a \cdot 300b$ | $100a \cdot 100b$ |
| $ab = \frac{3 \cdot 2^{23}}{24 \cdot 300 \cdot 300}$ | $i = \frac{128 \cdot 2^{13}}{100 \cdot 100 \cdot ab} = \frac{128 \cdot 2^{13} \cdot 24 \cdot 300 \cdot 300}{100 \cdot 100 \cdot 3 \cdot 2^{23}} = \frac{128 \cdot 24 \cdot 3}{2^{10}} = 3 \cdot 3 = 9$ |
| | $N = 2^9 = 512$ |

Ответ: 512

ET 9-2

n1



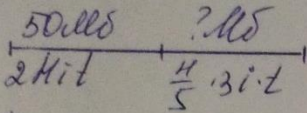
$$2 \cdot \text{Hit} = 30$$

$$\text{Hit} = 15$$

$$I = \frac{H}{1,5} \cdot 2 \cdot i \cdot t = \frac{2}{1,5} \text{Hit} = \frac{2}{1,5} \cdot 15 = 20 \text{ (Ws)}$$

Antwort: 20

n2



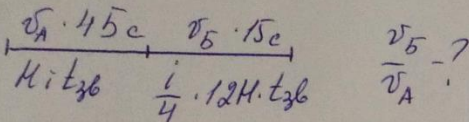
$$2 \text{ Hit} = 50$$

$$\text{Hit} = 25$$

$$\frac{H}{5} \cdot 3 \cdot i \cdot t = \frac{3}{5} \text{Hit} = \frac{3}{5} \cdot 25 = 15 \text{ (Ws)}$$

Antwort: 15

n3



$$\text{Hit}_{36} = v_A \cdot 45$$

$$\frac{1}{4} \cdot 12 \text{ Hit}_{36} = 15 v_B$$

$$3 \text{ Hit}_{36} = 15 v_B$$

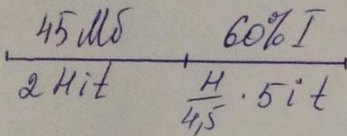
$$\text{Hit}_{36} = 5 v_B$$

$$v_A \cdot 45 = 5 v_B$$

$$\frac{v_B}{v_A} = 9$$

Antwort: 9

n4



$$2 \text{ Hit} = 45$$

$$\text{Hit} = \frac{45}{2}$$

$$\frac{H}{4,5} \cdot 5 \cdot i \cdot t = \frac{5}{4,5} \text{Hit} = \frac{5}{4,5} \cdot \frac{45}{2} = 25 \text{ (Ws)}$$

$$25 \cdot 0,6 = 15 \text{ (Ws)}$$

Antwort: 15

ET-8

N1

$$c = \frac{45-24}{3} = 17$$

$$s = 12 + k \cdot d$$

$$12 + 17d > 3004$$

$$17d > 2992$$

$$d > 176$$

$$d = 177$$

$$12 + 16d \leq 3004$$

$$16d \leq 2992$$

$$d \leq 187$$

$$d = 187$$

Jawab: 177, 187

N2

$$246 - 8 = 238$$

$$k = 238 : 7 = 34$$

$$s = 6 + k \cdot d$$

$$6 + d \cdot 34 > 1800$$

$$34d > 1794$$

$$d > 52,7...$$

$$6 + 33d \leq 1800$$

$$33d \leq 1794$$

$$d \leq 54,3...$$

$$d \in [53; 54]$$

Jawab: 2

N3

$$n > s$$

$$n - s > 0$$

$$x = n - s$$

$$x_1 = 60 - 6 = 54$$

$$x_2 = 0$$

$$d = -2 - 1 = -3$$

$$k = \frac{0-54}{-3} = 18$$

$$n = 60 - 18 \cdot 2 = 24$$

Jawab: 24

ET-11

N1 (119)

$$F(5) = F(4) 5 F(1) = 1234151$$

$$F(4) = F(3) 4 F(1) = 12341$$

$$F(3) = F(2) 3 F(1) = 123$$

$$F(2) = F(1) 2 F(1) = 12$$

$$F(1) = F(1) 1 F(1) = 1$$

Jawab: 1234151

N2 (120)

$$F(7) = 8 F(2) F(5) = 8363422$$

$$F(2) = 3$$

$$F(5) = 6 F(2) F(3) = 63422$$

$$F(3) = 4 F(1) F(1) = 422 \quad F(4) = 2$$

Jawab: 8363422

N3 (136)

$$F(7) = 6 F(5) 6(4) = 6442422$$

$$F(5) = 4 F(3) 6(2) = 442$$

$$F(3) = 4$$

$$F(1) = 2$$

$$6(4) = 4 6(2) F(1) = 422$$

$$6(2) = 2$$

Jawab: 6442422