

Varianta 2

• Subiectul I

1. R: 3

2. 17 caiete 51 lei

1 caiet x lei

1 caiet $51 : 17 = 3$ lei

R: 3 lei

3. $87 \cdot 504 = 43\ 848$

4. R: 14

5. $7 \cdot 7^{32} - 7^{33} = 7^{1+32} - 7^{33} = 7^{33} - 7^{33} = 0$

6. R: 100 becuri

• Subiectul al II-lea

7. $c = 27$.

$a - b = 54$

$$87a - 87b - 54c = 87 \cdot (a - b) - 54c = 87 \cdot 54 - 54 \cdot 27 =$$

$$= 54 \cdot (87 - 27) = 54 \cdot 60 = 3240$$

8. $\overline{43m} = ?$

$\overline{43m} : 2 \Rightarrow m = \{0, 2, 4, 6, 8\}$

$\overline{43m} \in \{430; 432; 434; 436; 438\}$

9. $27^2 + 3 \cdot [(3^7)^9 : 3^{30} + 3 \cdot 3^{27} - 3^{33}] : 9^{13} =$

$= 27^2 + 3(3^{63-30} + 3^{1+27} - 3^{33}) : 9^{13} = (3^3)^2 + 3(3^{33} + 3^{28} - 3^{33}) : 9^{13}$

$= 3^6 + 3 \cdot 3^{28} \cdot (3^5 + 1 - 3^5) : (3^2)^{13} = 3^6 + 3^{29} \cdot 1 : 3^{26} =$

$= 3^6 + 3^{29-26} = 3^6 + 3^3 = 3^3 \cdot (3^3 + 1) = 27 \cdot (27 + 1) =$

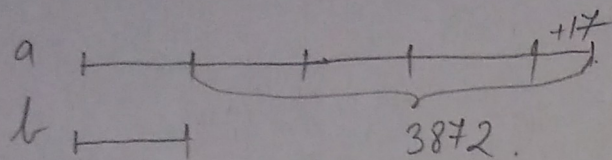
$= 27 \cdot 28 = 756$

• Subiectul al III-lea

10. $a : b = 4 \text{ r } 17 \Rightarrow a = 4 \cdot b + 17$

$a - b = 3872 \Rightarrow a = b + 3872$

$a, b = ?$



$3872 - 17 = 3855$ (3 seg. egale)

$3855 : 3 = 1285$ (b)

$4 \times 1285 + 17 = 5140 + 17 = 5157$ (a)

R: 5157, 1285

11. $P_{\square} = 1208 \text{ m}$

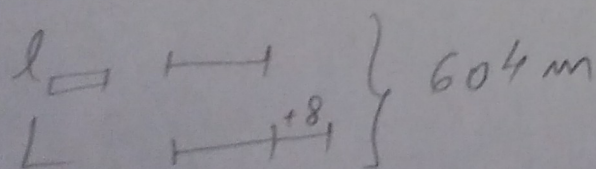
$l_{\square} = L - 8 \Rightarrow L = 8 + l_{\square}$

$P_{\square} = ?$, $l_{\square} = L$

$P_{\square} = 2 \cdot (L + l_{\square}) \Rightarrow 1208 = 2 \cdot (L + l_{\square})$

$L + l_{\square} = 1208 : 2$

$L + l_{\square} = 604 \text{ m}$



$604 - 8 = 596$ (2 seg. egale)

$596 : 2 = 298$ (l_{\square})

$298 + 8 = 306$ (L)

$P_{\square} = 4 \cdot l_{\square} = 4 \cdot L = 4 \cdot 306 = 1224 \text{ m}$