(5) $\sum_{i=0}^{9} \sum_{j=i}^{c} 1 = 85$

$$10 \frac{(c+(c-9))}{2} = 85$$

$$5(c+(c-9)) = 85$$

$$c + c - 9 = 17$$

$$2c = 26$$

$$\underline{\underline{c = 13}}$$

$$\frac{10(c+(c-9))}{2} = 85$$

$$10c - 45 = 85$$

$$10c = 130$$

$$\frac{10c + 10c - 90}{2} = 85$$

$$\underline{\underline{c = 13}}$$

(6) $\sum_{k=1}^{n} 2k \quad 2\left(\frac{n+1}{2} n\right) = \underline{\underline{(n+1)n}}$ e//

$$= 2\sum_{n=1}^{n} 2k$$

(7) $\underline{\underline{A: n = 7905}}$

$B1: 5000 \cdot \sqrt[3]{2{,}5} = 6786$

$B2: 5000 \cdot 2{,}5^2 = 31250$

$B3: 5000 \cdot 2^n =$

$n_1 = 5000 \quad n_2 = ?$

$n_1 = \sqrt{2{,}5}\, n_2$

$T_1 = 2{,}5\, T_2$

$T_1 = \cancel{c}\, n_1^2 = 2{,}5 \cancel{c} \boxed{n_2^2} = T_2$

$$\frac{c n \log_2 n}{c n k \log_2 n k} = \frac{1}{2{,}5}$$

$2{,}5 \cdot \cancel{cn} \log_2 n = \cancel{cn}k \log_2 nk$

$2{,}5 \log_2 n = \log_2 nk$

$\log_2 n^{2{,}5} = \log_2 nk$

$n^{2{,}5} = nk$

$n^{1{,}5} = k$

?

$3600 \cdot 10^{9} = 3{,}6 \cdot 10^{12}$

$3{,}6 \cdot 10^{12} = n^{3/2}$

$n = \left(3{,}6 \cdot 10^{12}\right)^{2/3}$

(9) A: n^2+17

B: $2n+80$

pro jaké n je A výhodnější?

$n^2+17 < 2n+80$

$n^2-2n-63<0$ $\quad \underline{\underline{n=9}}$

$\frac{2+16}{2} = 9$