

0.5 . ?
 150 . = . 75 . .
 (1) . () , ()
 0:

$$V = g \cdot t = \frac{V}{g} = \frac{2 \cdot 10^5}{1} = 2 \cdot 10^5 \text{ c} \quad (1)$$

$$S = \frac{gt^2}{2} = \frac{g}{2} \cdot \frac{V^2}{g^2} = \frac{V^2}{2g} = \frac{2^2 \cdot 10^{10}}{2 \cdot 1} = 2 \cdot 10^{10} \text{ м} = 1,33 \text{ а. е} \quad (1)$$

(2) .

$$\frac{S}{2} = \frac{gt^2}{2} \quad t = \sqrt{\frac{S}{g}} = \sqrt{\frac{2,5 \cdot 10^{10}}{1}} \cong 86602 \text{ сек} \approx 1 \text{ сутки} \quad T = 2t \approx 2 \text{ дня} \quad (3)$$

(10%).

6. 3 ?

(1) .

— , () (2)
):

$$\frac{1}{S} = \frac{1}{T_{\Pi}} - \frac{1}{T_{\text{Э}}} \quad \text{и} \quad S = 3T_{\Pi} \quad (1)$$

$$\frac{1}{S} = \frac{1}{T_3} - \frac{1}{T_{\Pi}} \quad \text{и} \quad S = 3T_{\Pi} \quad (2)$$

S - , - , -

(1):

$$\frac{1}{3T_{\Pi}} = \frac{1}{T_{\Pi}} - \frac{1}{T_3} \text{ и } \frac{1}{3T_{\Pi}} = \frac{1}{T_3} - \frac{1}{T_{\Pi}}$$

$$\frac{2}{3} = \frac{T_{\Pi}}{T_3} \text{ и } \frac{4}{3} = \frac{T_{\Pi}}{T_3}$$

$$\frac{T_{\Pi}^2}{T_3^2} = \frac{a_{\Pi}^3}{a_3^3}, \text{ следовательно } - \frac{T_{\Pi}^2}{T_3^2} = \frac{a_{\Pi}^3}{a_3^3} = \left(\frac{2}{3}\right)^2 \text{ и } \frac{T_{\Pi}^2}{T_3^2} = \frac{a_{\Pi}^3}{a_3^3} = \left(\frac{4}{3}\right)^2$$

$$a_{\Pi} = \left(\frac{2}{3}\right)^{2/3} \approx 0,76 \text{ а.е. и } a_{\Pi} = \left(\frac{4}{3}\right)^{2/3} \approx 1,21 \text{ а.е. (2)}$$

), , 0.21 . . () (2)