

10

1.

20 21

(, ,),

(, ,).

2.

F

G — R — R

$F = GMm/R^2$, m —

(, ,)

$=V = (4/3) R^3$,

$F = (4/3)G R m$

$F = mv^2/R = m R = 4^2 mR/T^2$,

v — —

$= 3 /GT^2$

3.

« »

2 2.5 · (1/2)² = (5/4) ² 12 . . .³ . . .

12 · 10⁻⁶ . . .³,

0.02 .

4.

P,

III

$$P^2 = a^3$$

1/220

30),

$$P_{min} = (1/220)^{3/2} \approx 0.3$$

$$a = 0.5$$

1

1.3

$2 \cdot 10^5$

$$P_{max} = (10^5)^{3/2} = 10^{7.5} \approx 3 \cdot 10^7 = 30$$

5.

70

100

5^m,

: 11^m.

6.)

15'

$$3438L/15, \dots \quad L \quad 30 \quad 40 \quad (\quad)$$

)

).

)

8-9

19-20

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