

10

1. _____:
 $(3/2)V^2/g.$

_____:

60° (, ,).
 $2V\cos 60^\circ = V, \dots,$
 $60^\circ, \dots, (3/2)V^2/g.$

2. _____:
 $2mgtg\alpha.$

_____:

$F.$
 $a = F/(2m),$
 $2-$
 $macos\alpha = Fcos\alpha - mgsin\alpha$
 $a, F.$

3. _____:

_____:

$[(V_0^2 + 2u^2)/3]^{1/2}.$
 $x, L - \mu - m$
 $1- 2m.$
 $a_x = -\mu g,$
 $x, \mu 2mg,$
 $a_x = 2\mu g.$
 $a_x - a_x = -3\mu g,$
 $V_0 u ($
 $V_x^2 - V_0^2 = 2a_x \Delta x,$
 $V_0^2 - u^2 = 6\mu gL.$
 $2- \mu mg.$
 $a_x = -\mu g, a_x = \mu g. a_x - a_x = -2\mu g,$
 $V_0 u'.$

$$V_0^2 - (u')^2 = 4\mu gL.$$

$$u' = [(V_0^2 + 2u^2)/3]^{1/2}.$$

4. _____:

2R

3R.

(3/2)R.

_____:

U,

U/(3R) U/(5R)

(2/25)U²/R

2R

(2/9)U²/R

2R

2R

3R.

2R

R_x,

2R

$$: 2RU^2/(2R + R_\Sigma)^2, \quad R_\Sigma = 3RR_x/(3R + R_x).$$

2R,

).

2R

$$2RU^2/(2R + R_\Sigma)^2 > (2/9)U^2/R,$$

$$R_x < (3/2)R.$$

3R

7

1. _____:

_____:

2 ,

T.

4 .

8 .

4 ,

2 .

7 ,

(

(7)

2. _____:

2 .

2 .

3. _____:

5/8

:

1-2