

# YAKEEN NEET 2.0

**2026**

Work, Energy and Power

**PHYSICS**

**Lecture - 04**

**By - Saleem Ahmed Sir**



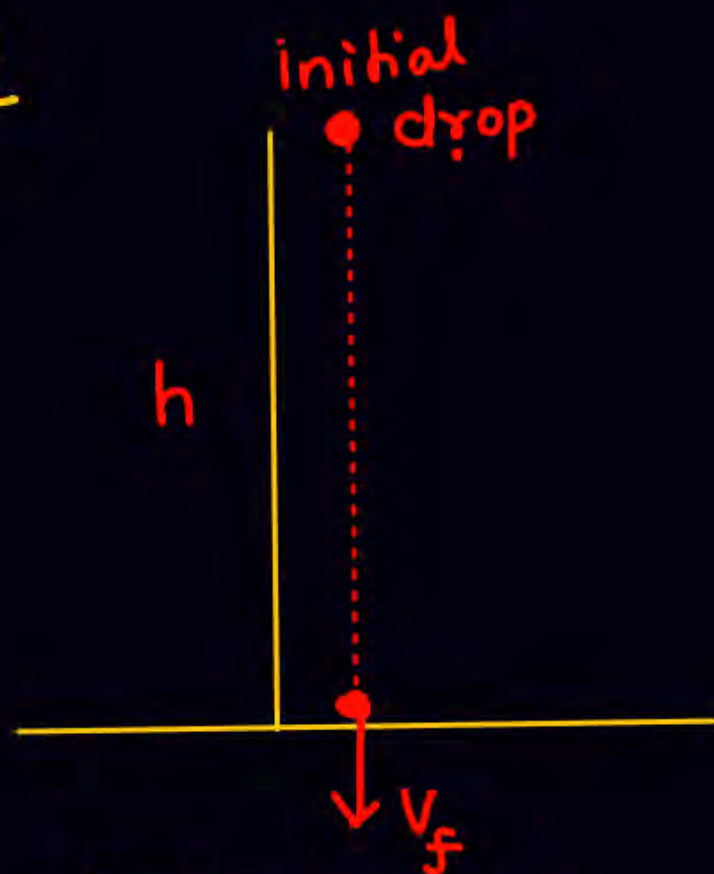


## Today's Goal

- Work Energy theorem in Saleem Bhaia style . . .



Q

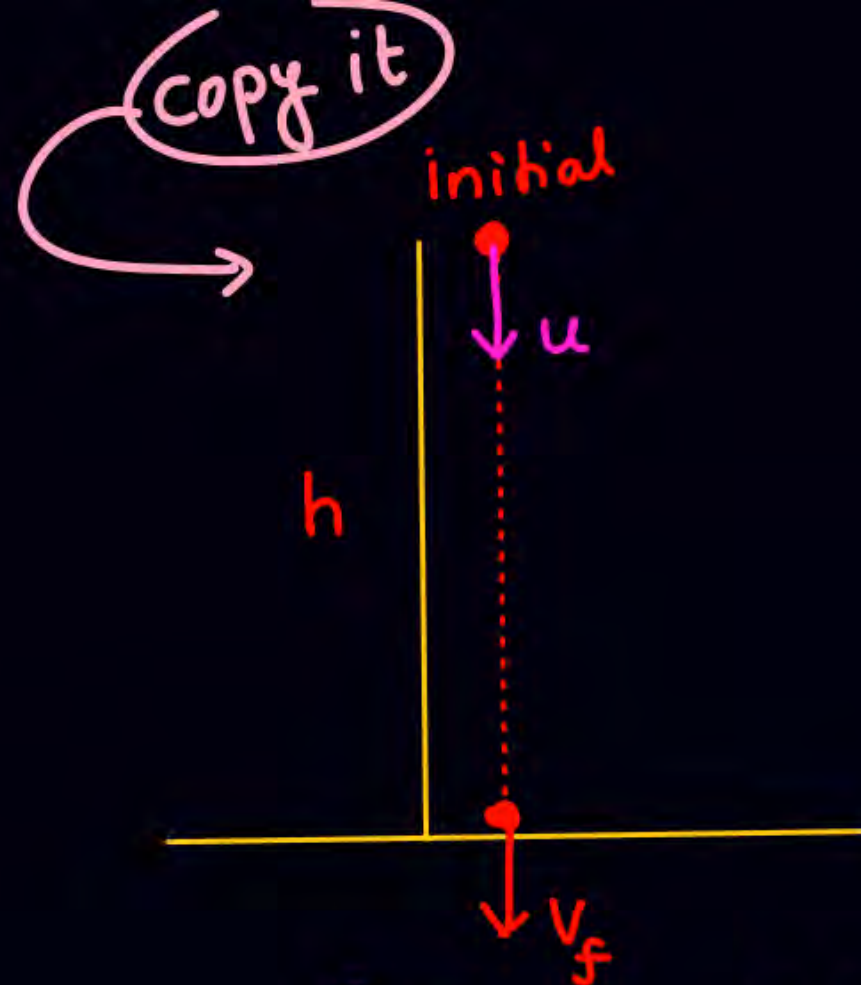


$$(W D)_{all} = \Delta K \cdot E.$$

$$W_g = K_f - K_i$$

$$mgh = \frac{1}{2}mv_f^2 - 0$$

$$v_f = \sqrt{2gh}$$



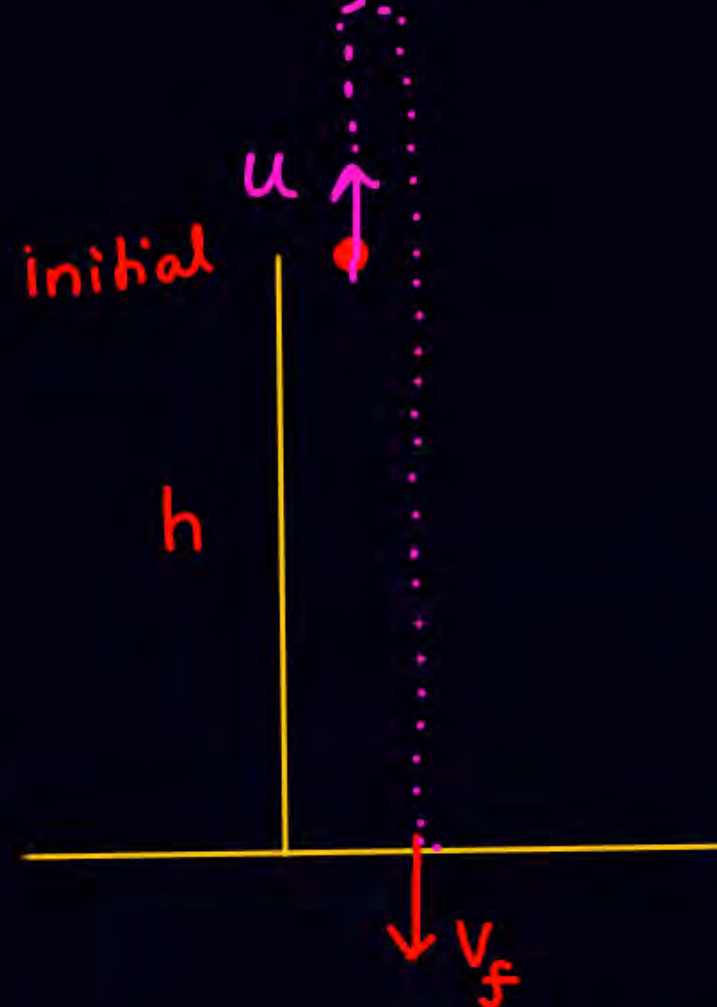
$$(W D)_{all} = \Delta K \cdot E.$$

$$W_g = K_f - K_i$$

$$+mgh = \frac{1}{2}mv_f^2 - \frac{1}{2}mu^2$$

$$v_f^2 = u^2 + 2gh$$

$$v_f = \sqrt{u^2 + 2gh}$$



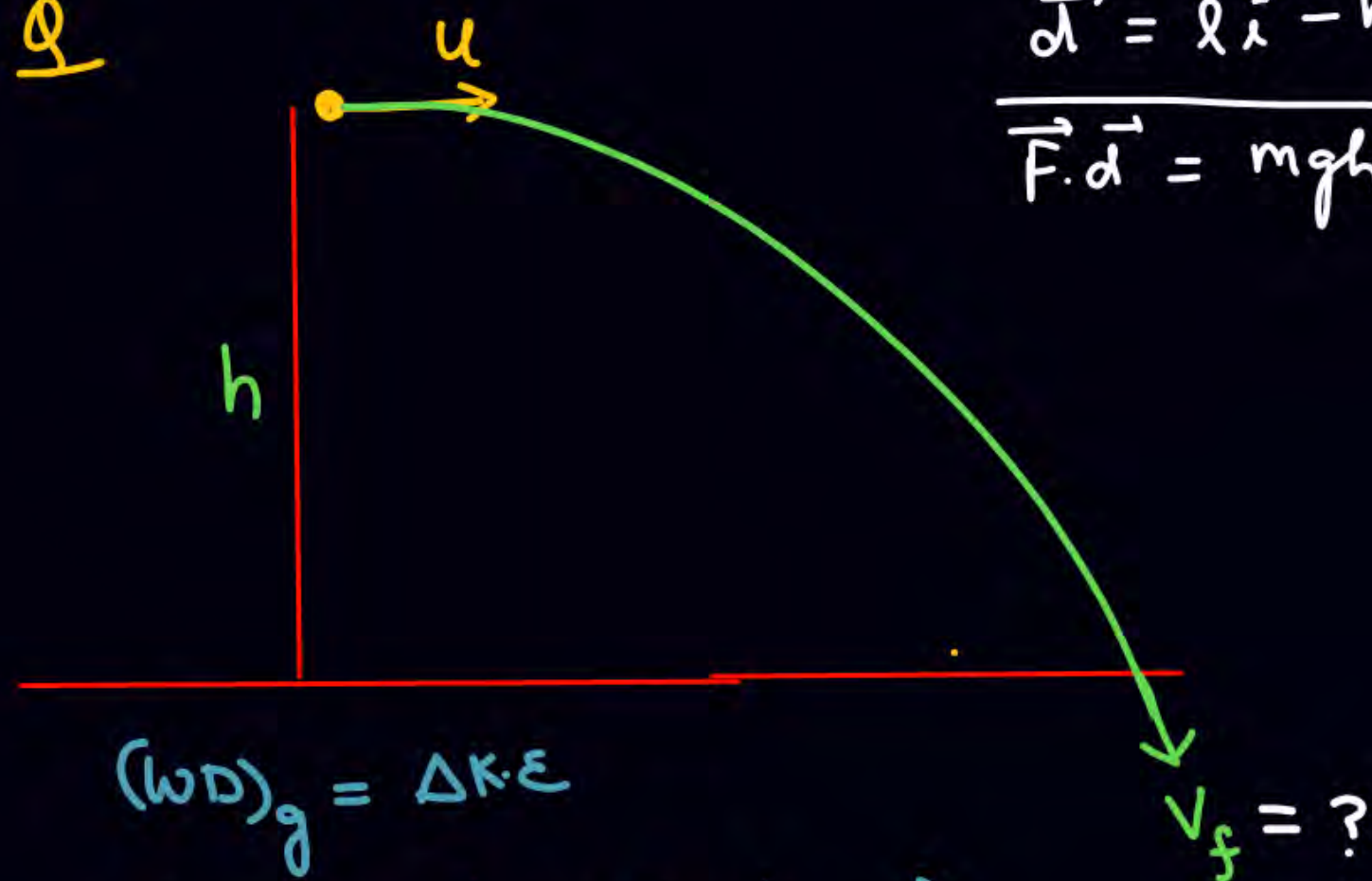
$$(W D)_{all} = \Delta K \cdot E.$$

$$+mgh = \frac{1}{2}mv_f^2 - \frac{1}{2}mu^2$$

$$v_f = \sqrt{u^2 + 2gh}$$



Q



$$(WD)_g = \Delta K.E$$

$$mgh = \frac{1}{2}mv_f^2 - \frac{1}{2}mu^2$$

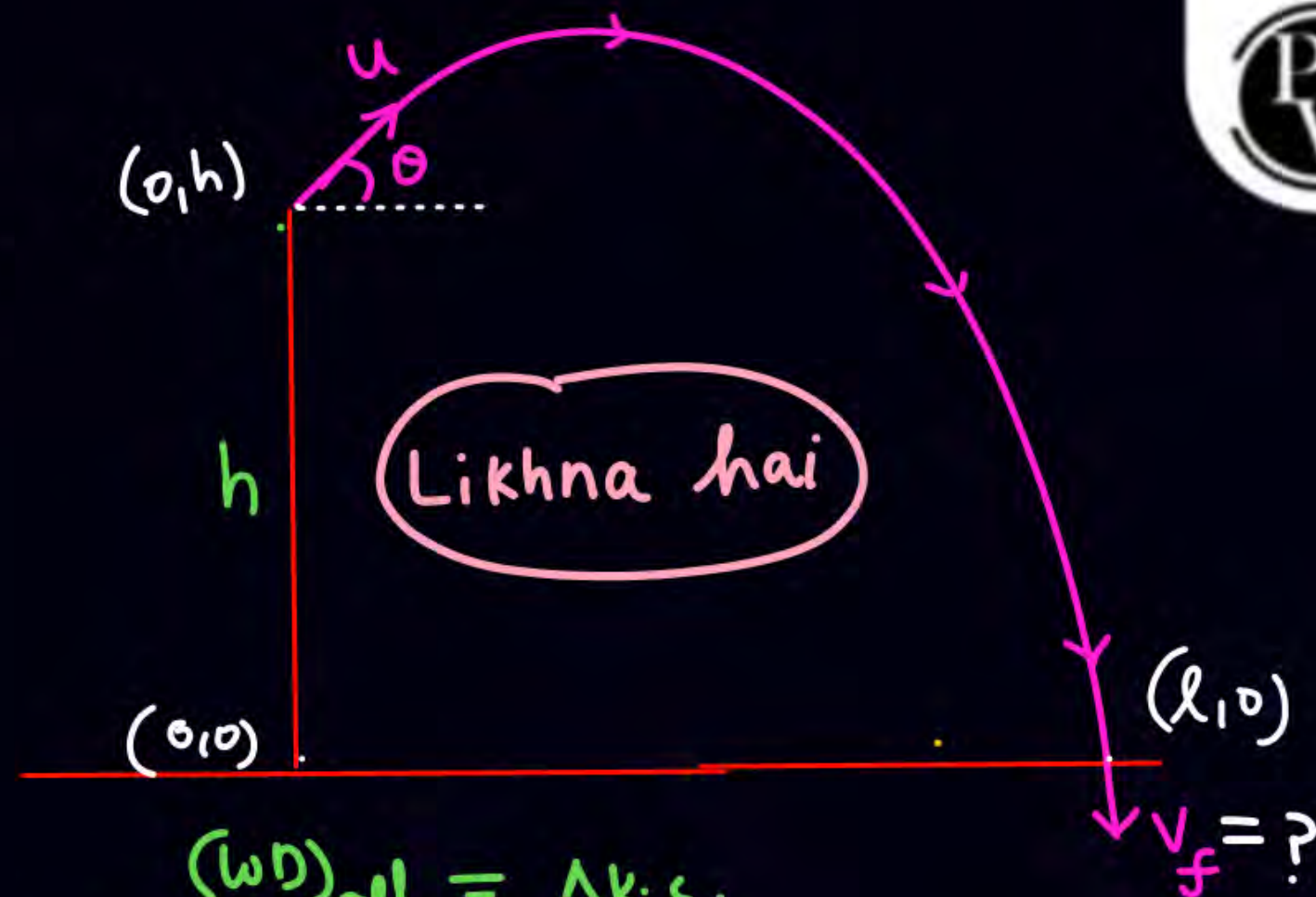
$$v_f = \sqrt{u^2 + 2gh}$$

$$\vec{F} = -mg\hat{j}$$

$$\vec{d} = l\hat{i} - h\hat{j}$$


---


$$\vec{F} \cdot \vec{d} = mgh$$



$$(WD)_{all} = \Delta K.E$$

$$+mgh = \frac{1}{2}mv_f^2 - \frac{1}{2}mu^2$$

$$v_f = \sqrt{u^2 + 2gh}$$



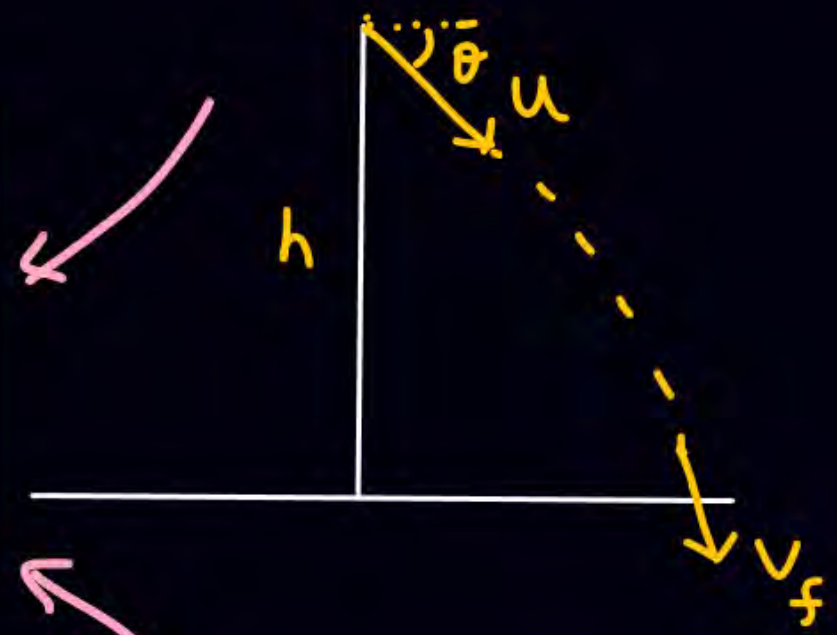
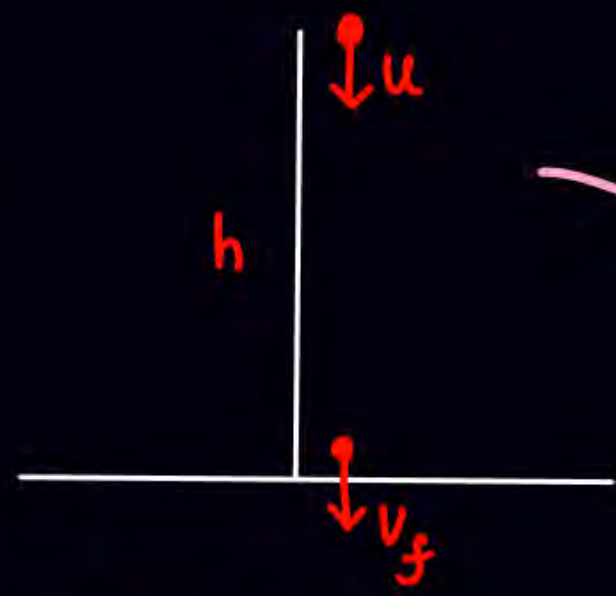
(SKC box) Revision

$$W_g = \Delta K.E.$$

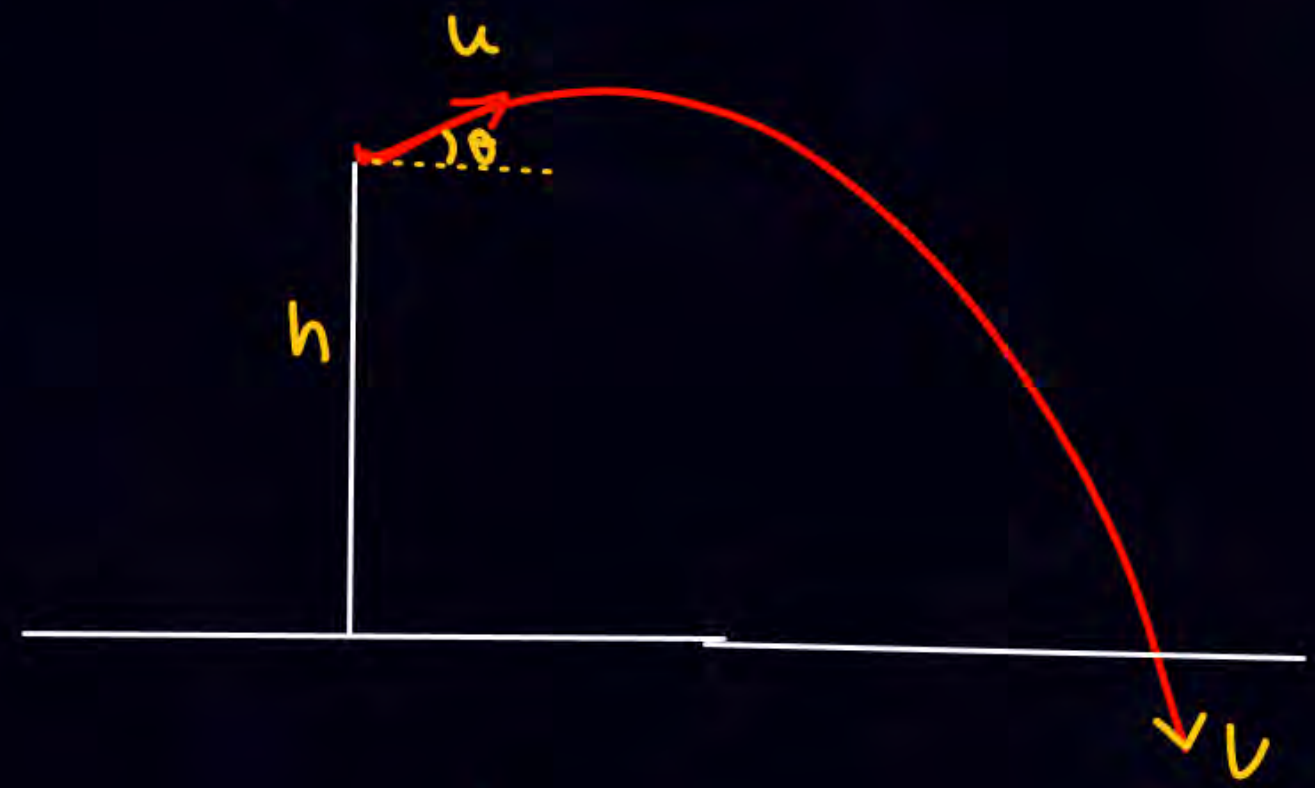
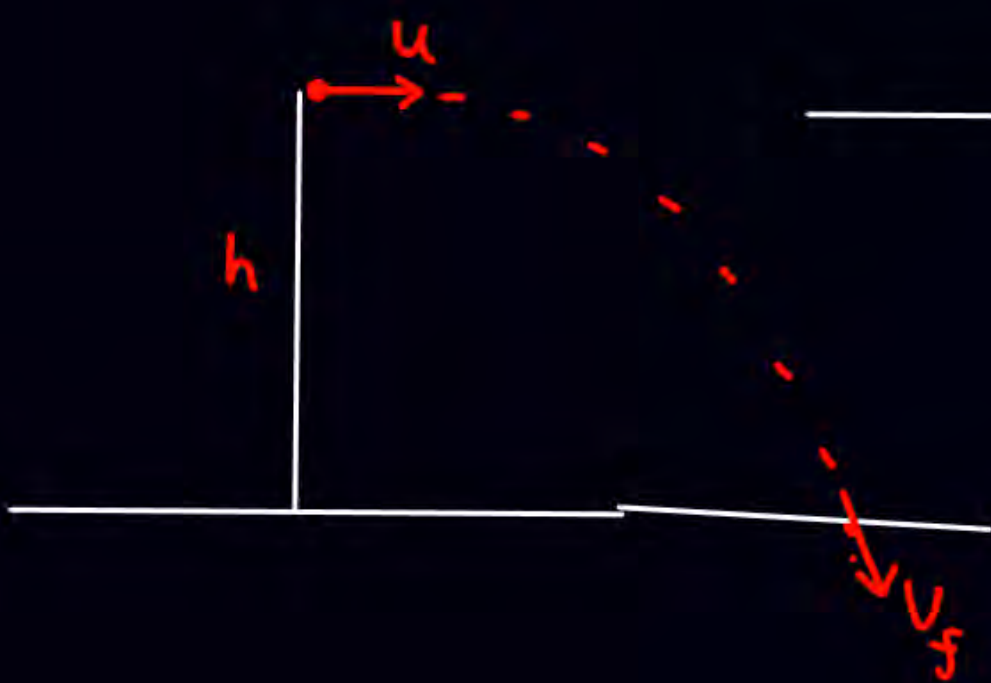
$$mgh = \frac{1}{2}mv_f^2 - \frac{1}{2}mu^2$$

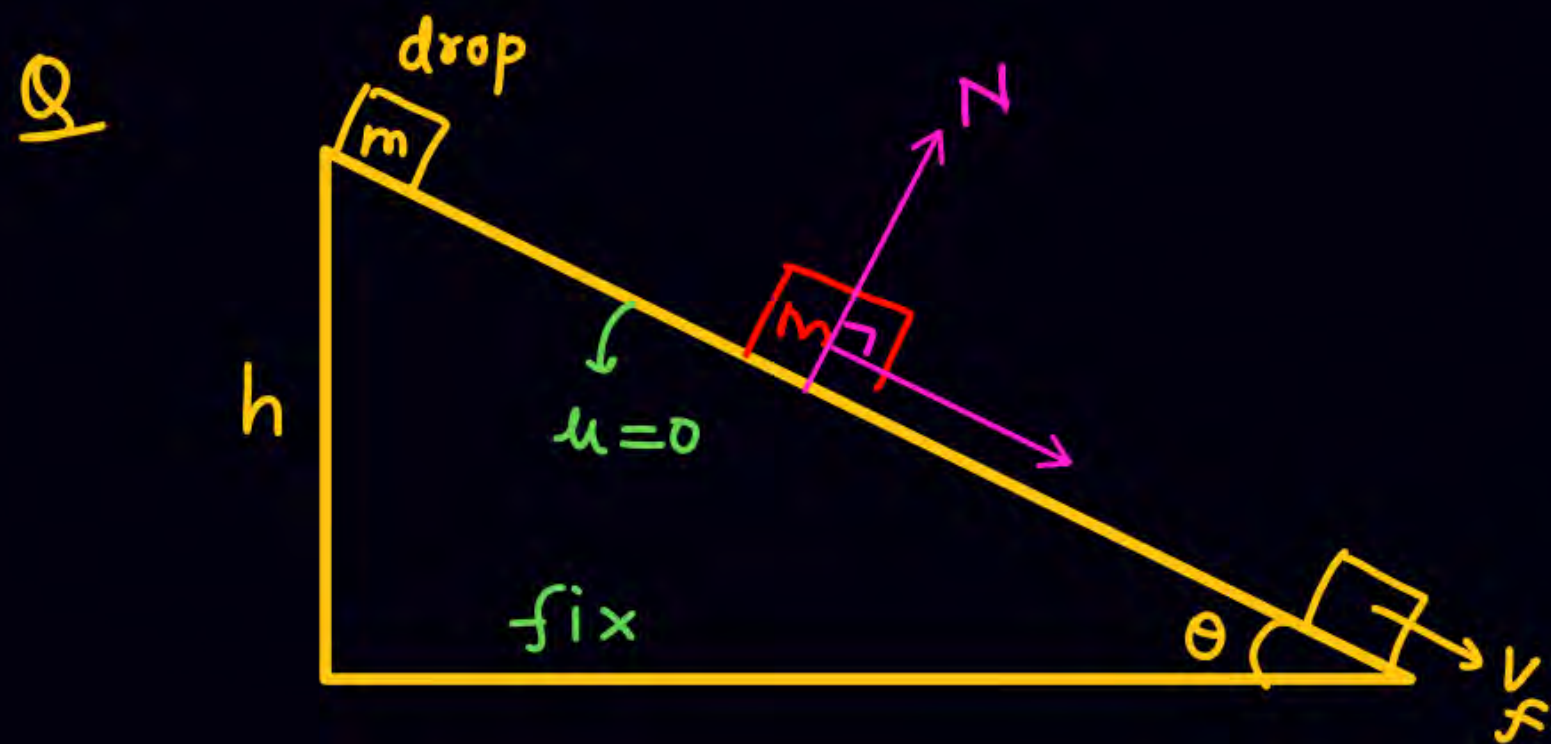
$$v_f^2 = u^2 + 2gh$$

Q



Copy it





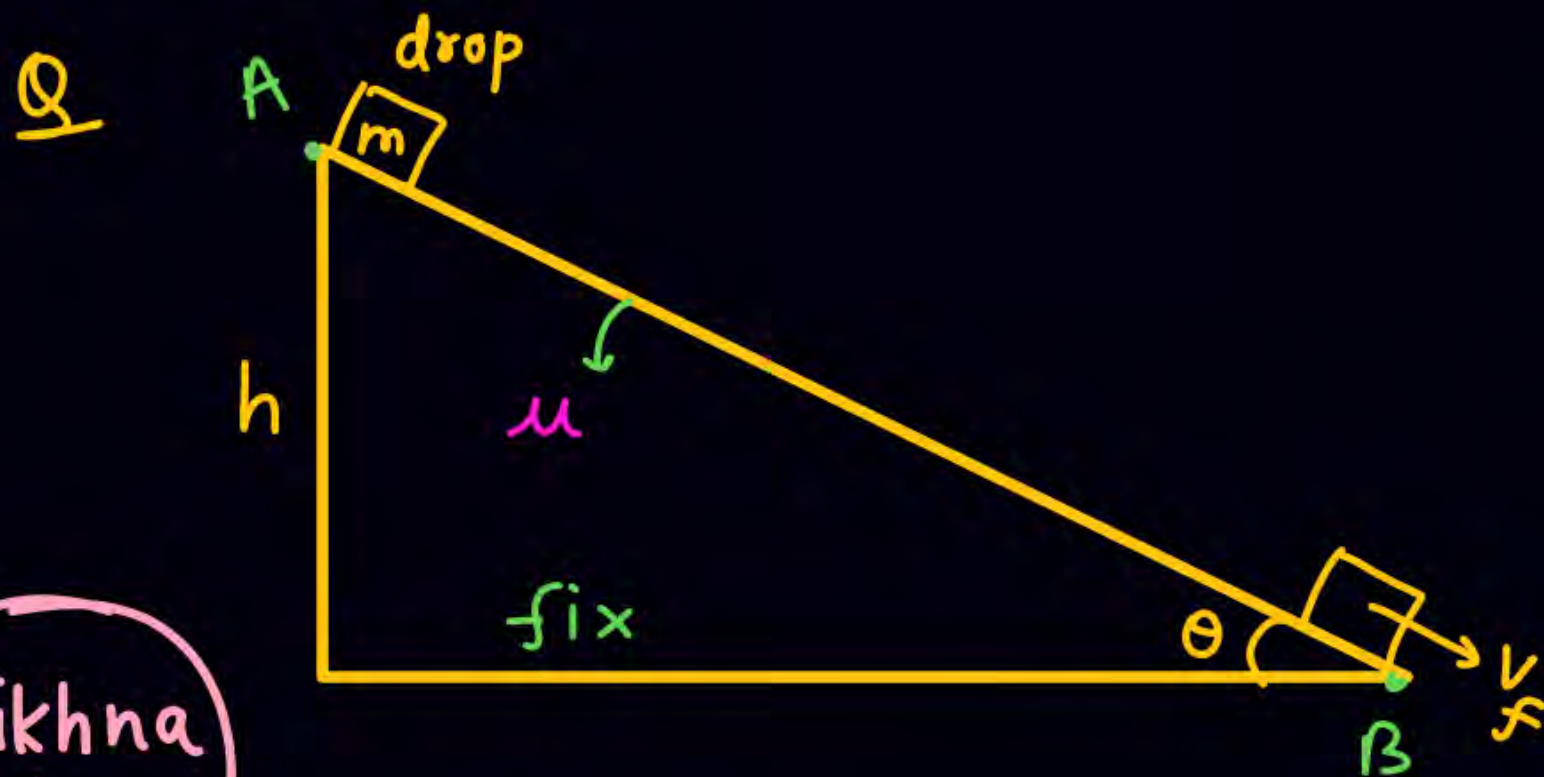
(Likhna hai)

$$(WD)_{all} = \Delta K.E.$$

$$W_g + W_N = \Delta K.E.$$

$$+mgh + 0 = \frac{1}{2}mv_f^2 - 0$$

$$v_f = \sqrt{2gh}$$



$$AB = l$$

$$f_k = \mu N = \mu mg \cos \theta$$

$$(WD)_{all} = \Delta K.E.$$

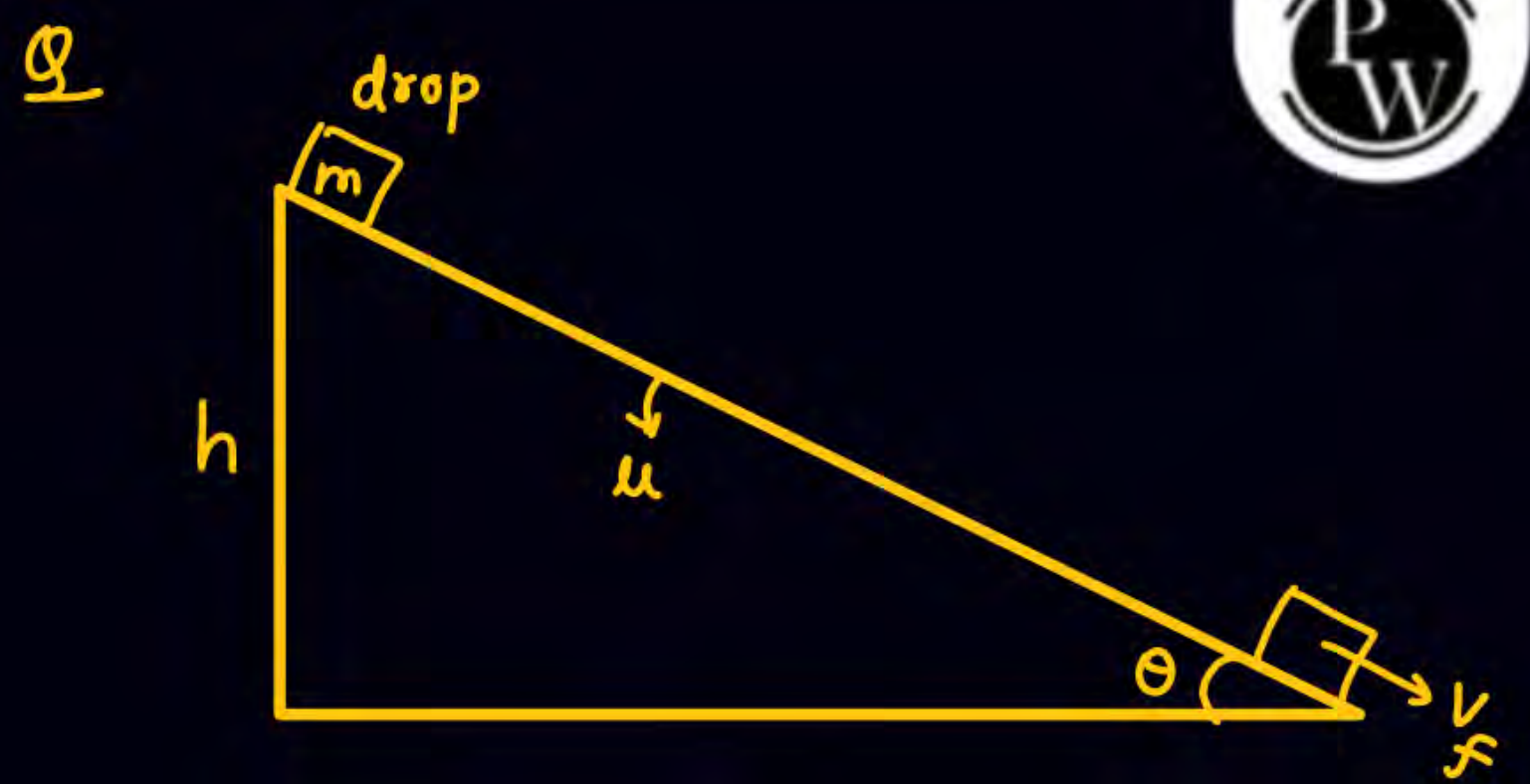
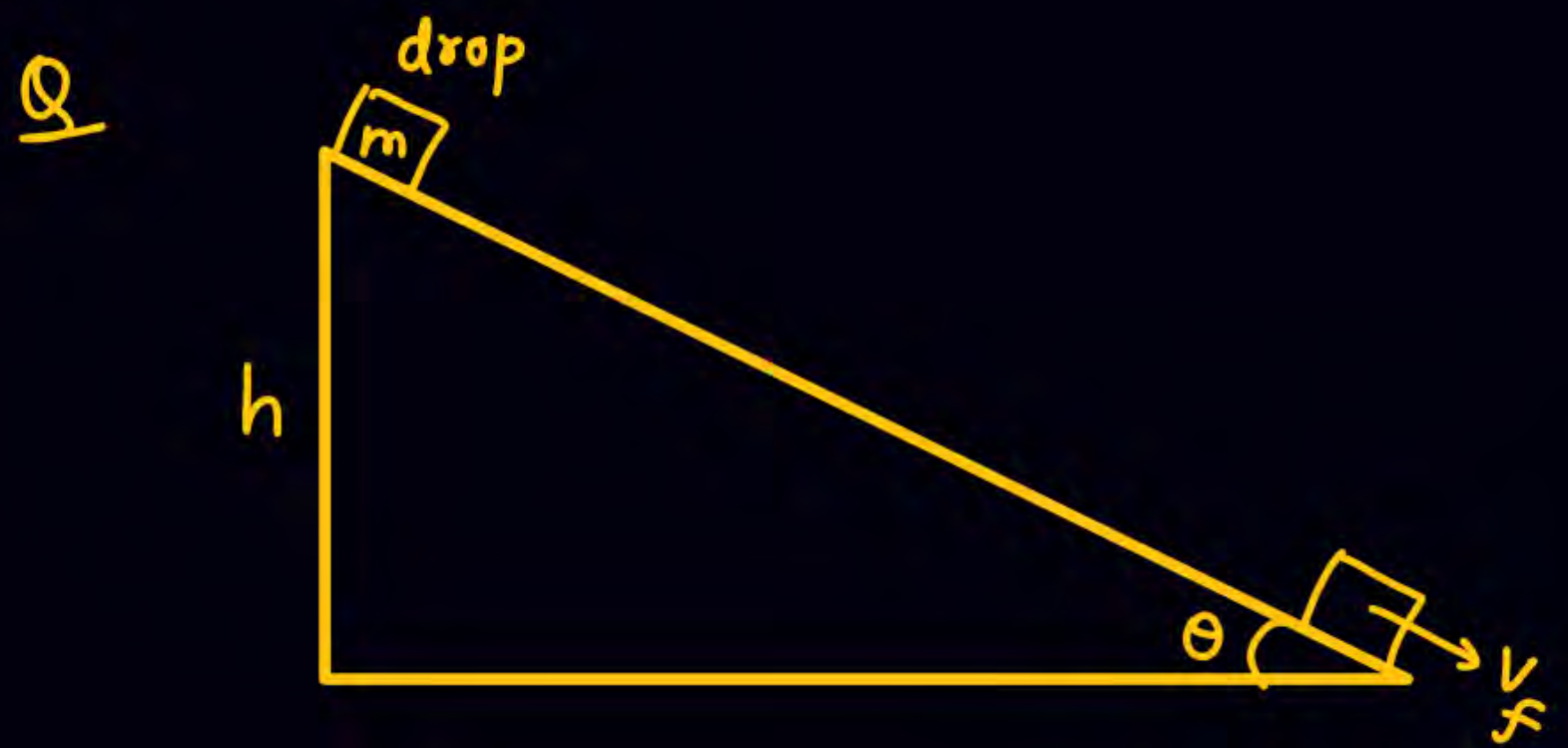
$$W_g + W_N + W_f = \Delta K.E.$$

$$+mgh + 0 - \mu mg \cos \theta \cdot l = \frac{1}{2}mv^2 - 0$$

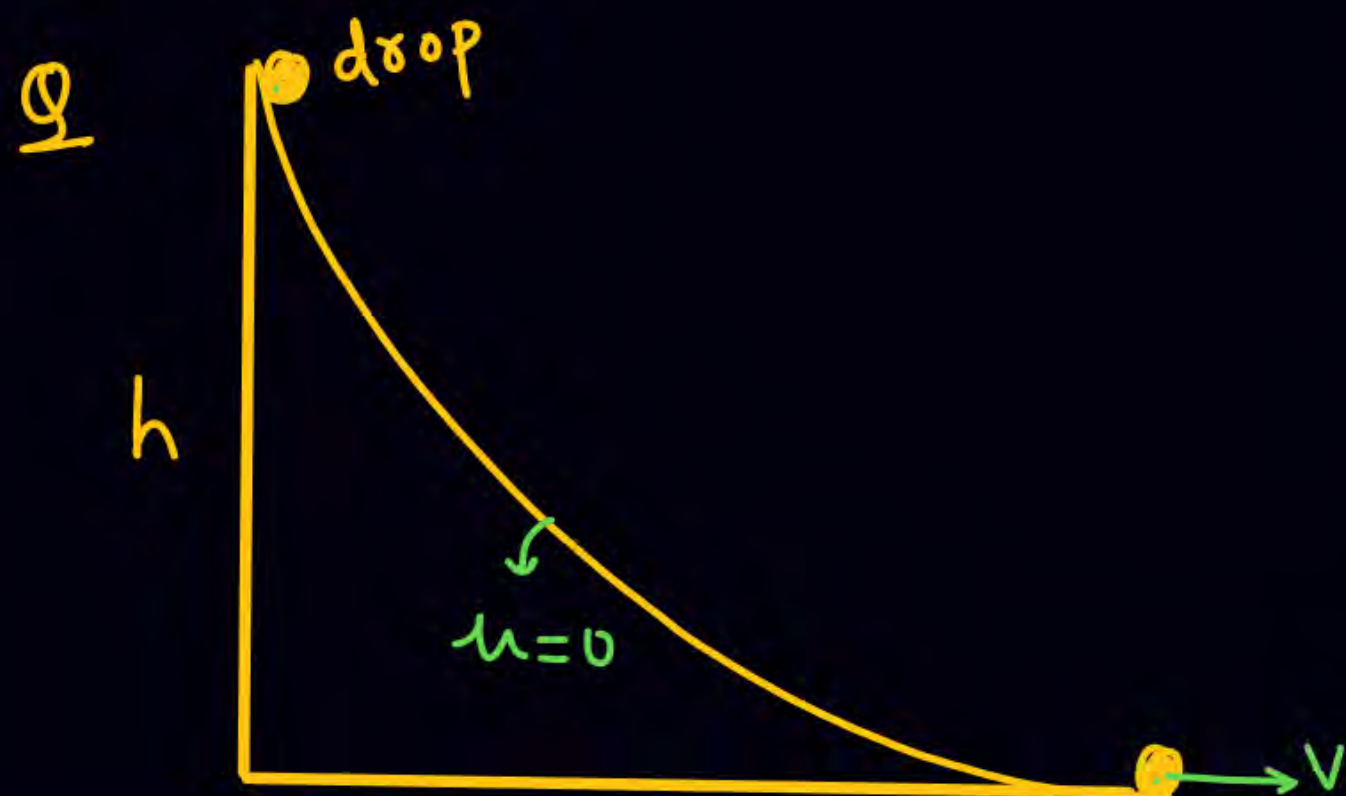
$$v^2 = 2gh - 2\mu g \cos \theta \cdot l$$

Likhna hai









(likhna hai)

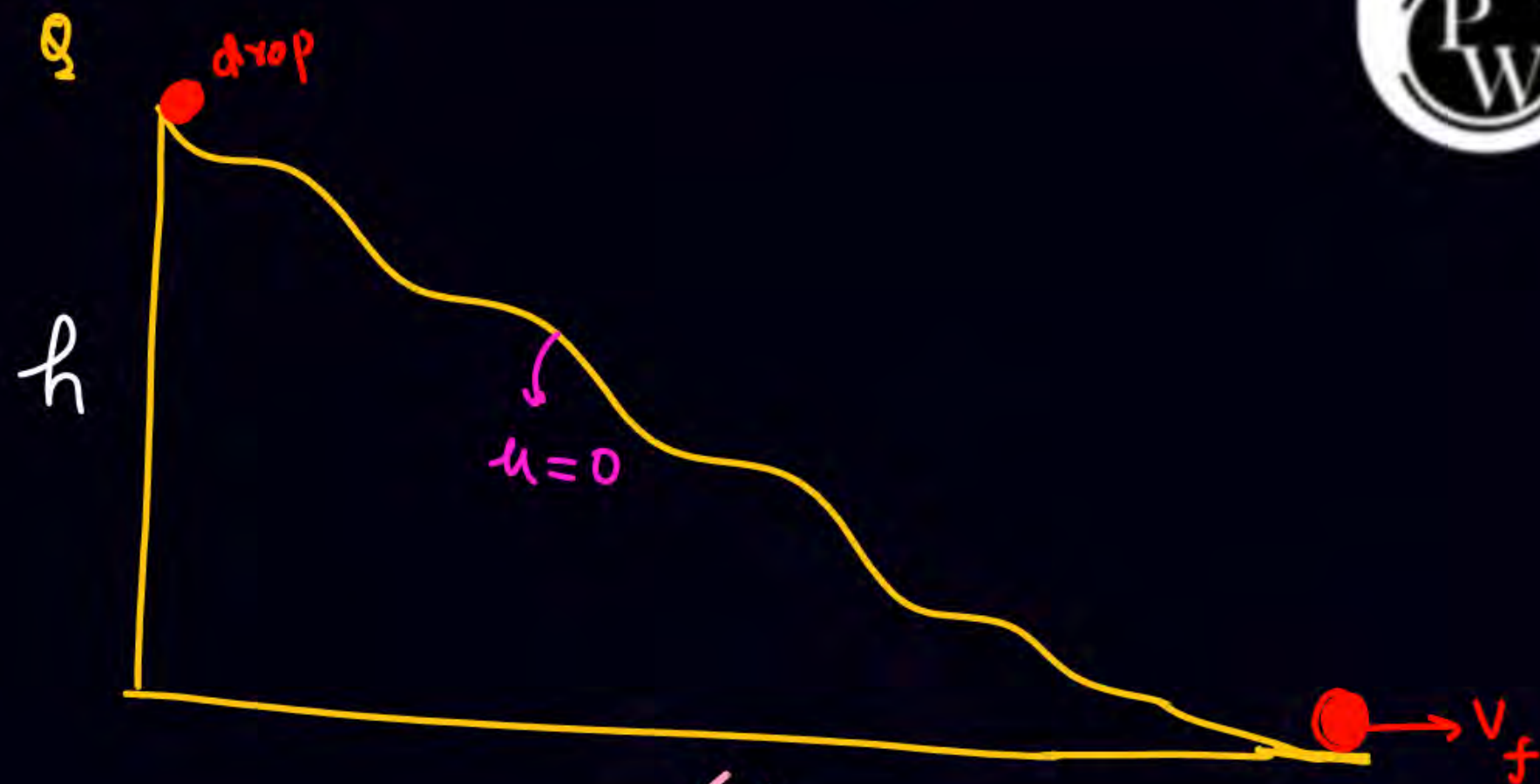


$$(W)_{all} = \Delta K.E.$$

$$W_g + W_N = K_f - K_i$$

$$mgh + 0 = \frac{1}{2}mv^2 - 0$$

$$v = \sqrt{2gh}$$





$$(W D)_{all} = \Delta K E$$

$$W_g = K_f - K_i$$

$$mgh = \frac{1}{2}mv^2 - 0$$

$$v = \sqrt{2gh}$$



$$(W D)_{all} = \Delta K E$$

$$W_g + W_N = \Delta K E$$

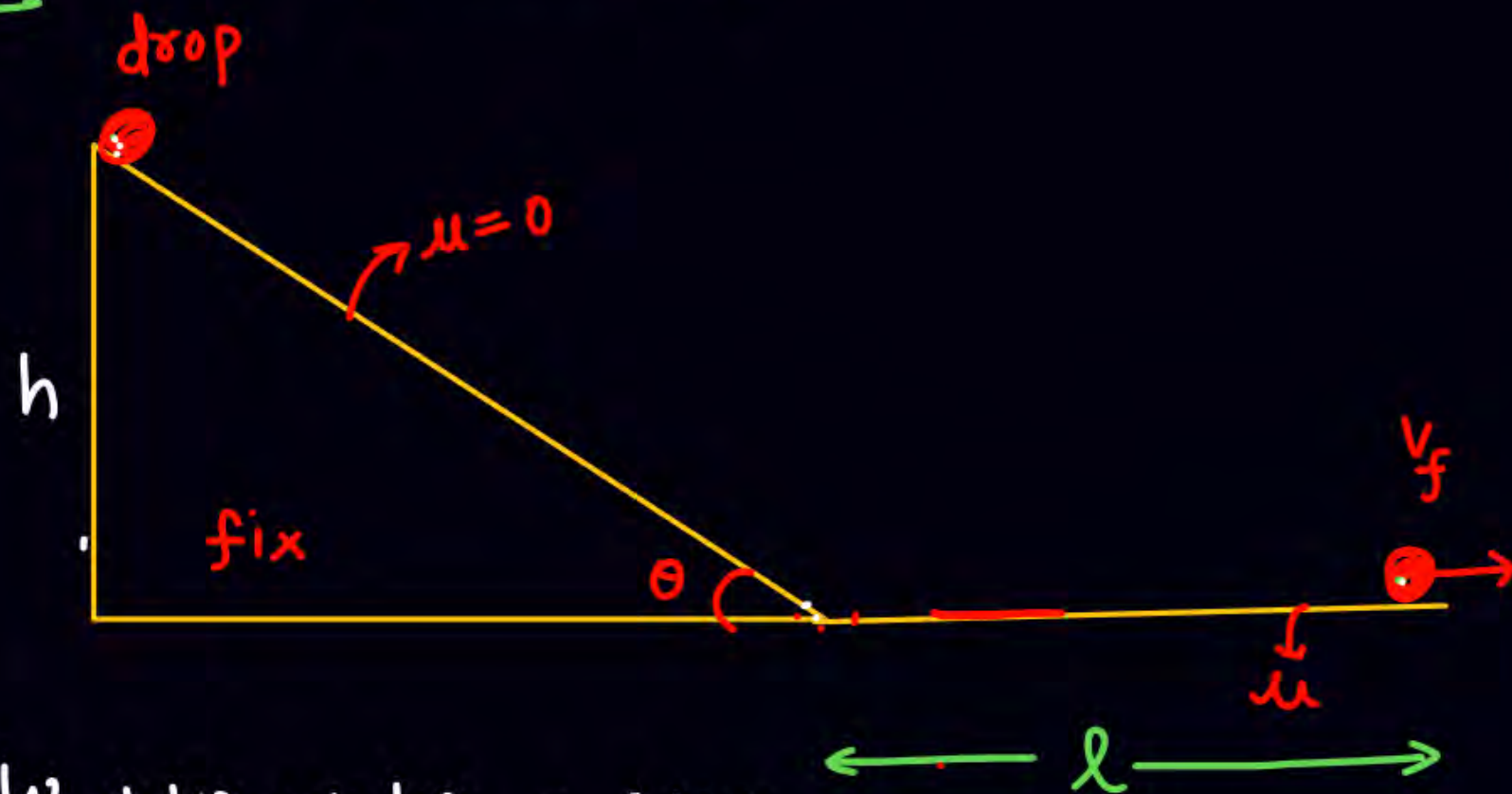
$$mgh + 0 + 0 = \frac{1}{2}mv_f^2 - 0$$

$$v_f = \sqrt{2gh}$$



Q

(likhna hai)



$$W_g + W_N + W_f = \Delta K.E.$$

$$+mgh + 0 + (0 - \mu mg l) = \frac{1}{2}mv_f^2 - 0$$

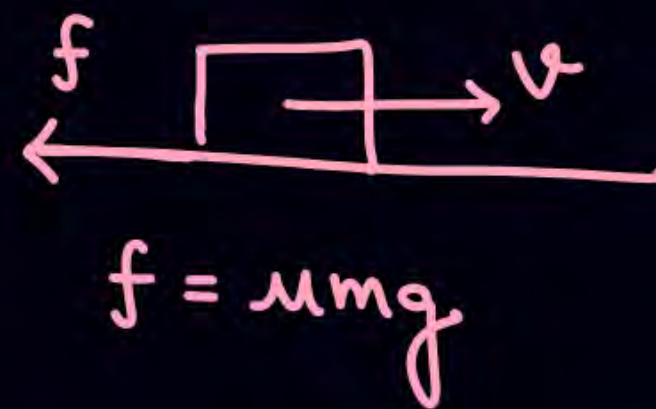
(b)

find  $l = ?$

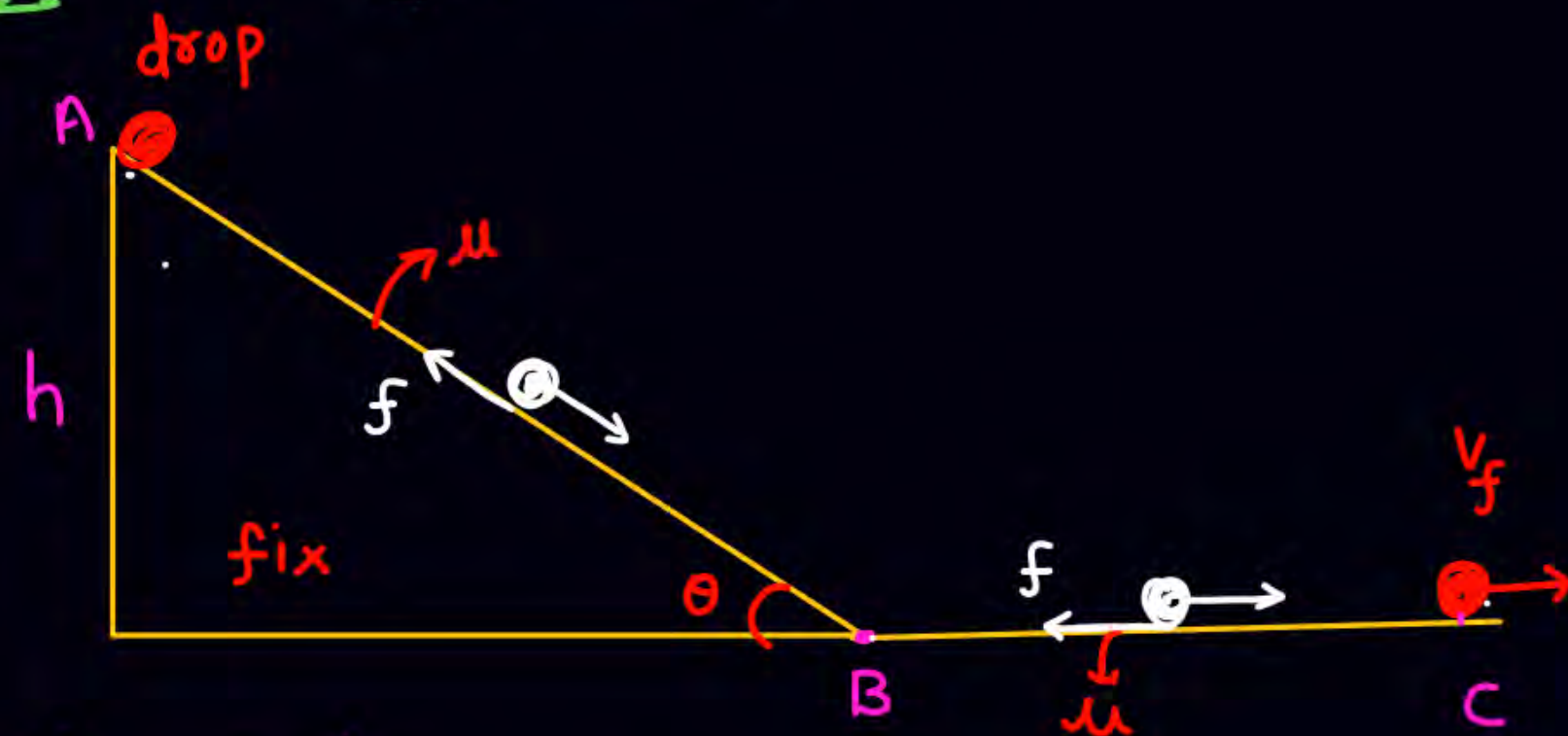
so that particle comes to at rest.

$$W_g + W_N + W_f = \Delta K.E. = K_f - K_i$$

$$mgh + 0 + 0 - \mu mg l = 0 - 0$$



Q (likhna hai)



(AB =  $l_1$   
BC =  $l_2$ )

$$(WD)_{all} = \Delta K.E.$$

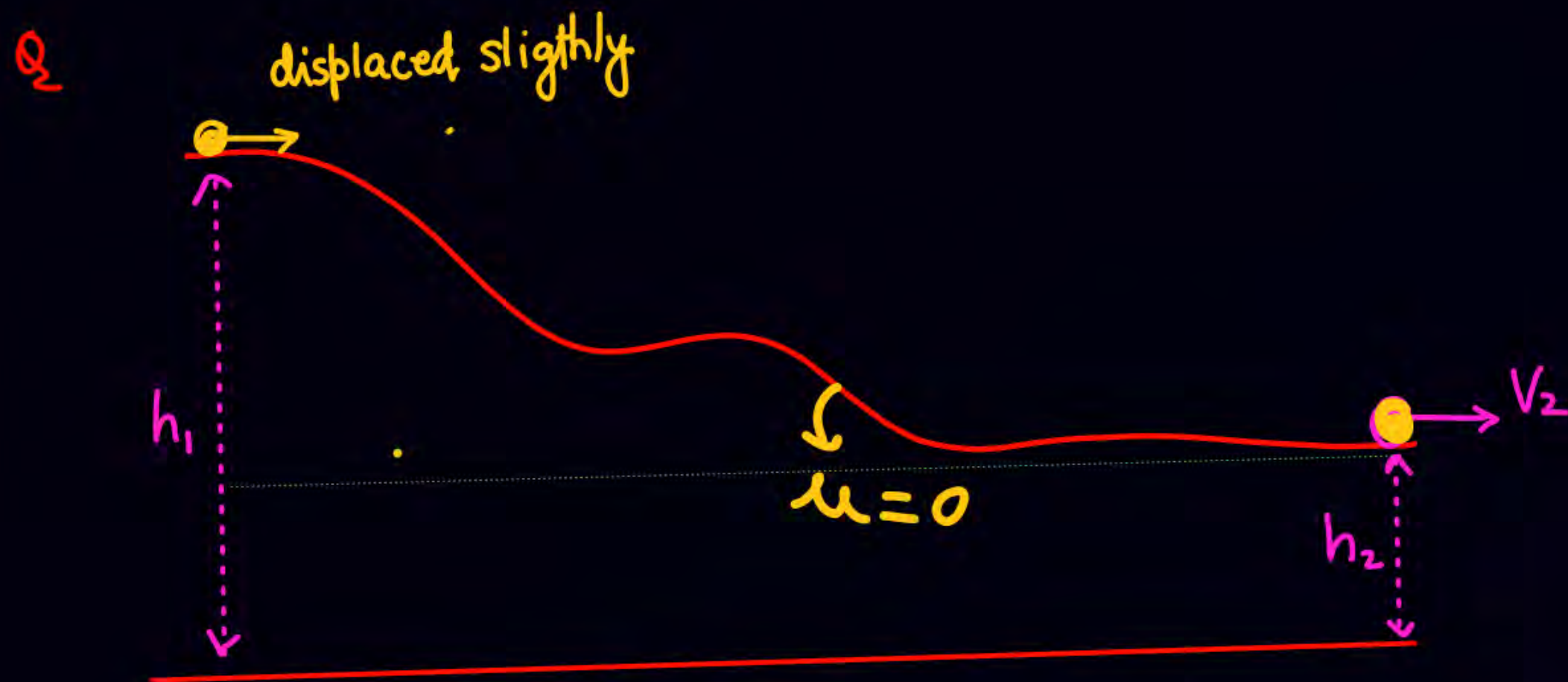
$$W_g + W_N + W_f = K_f - K_i$$

$$+mgh + 0 - \mu mg \cos \theta l_1 - \mu mg l_2 = \frac{1}{2} m v_f^2 - 0$$

(b) find BC = ?  
so that particle comes  
to at rest

$$v_f = 0 \text{ (put)}$$

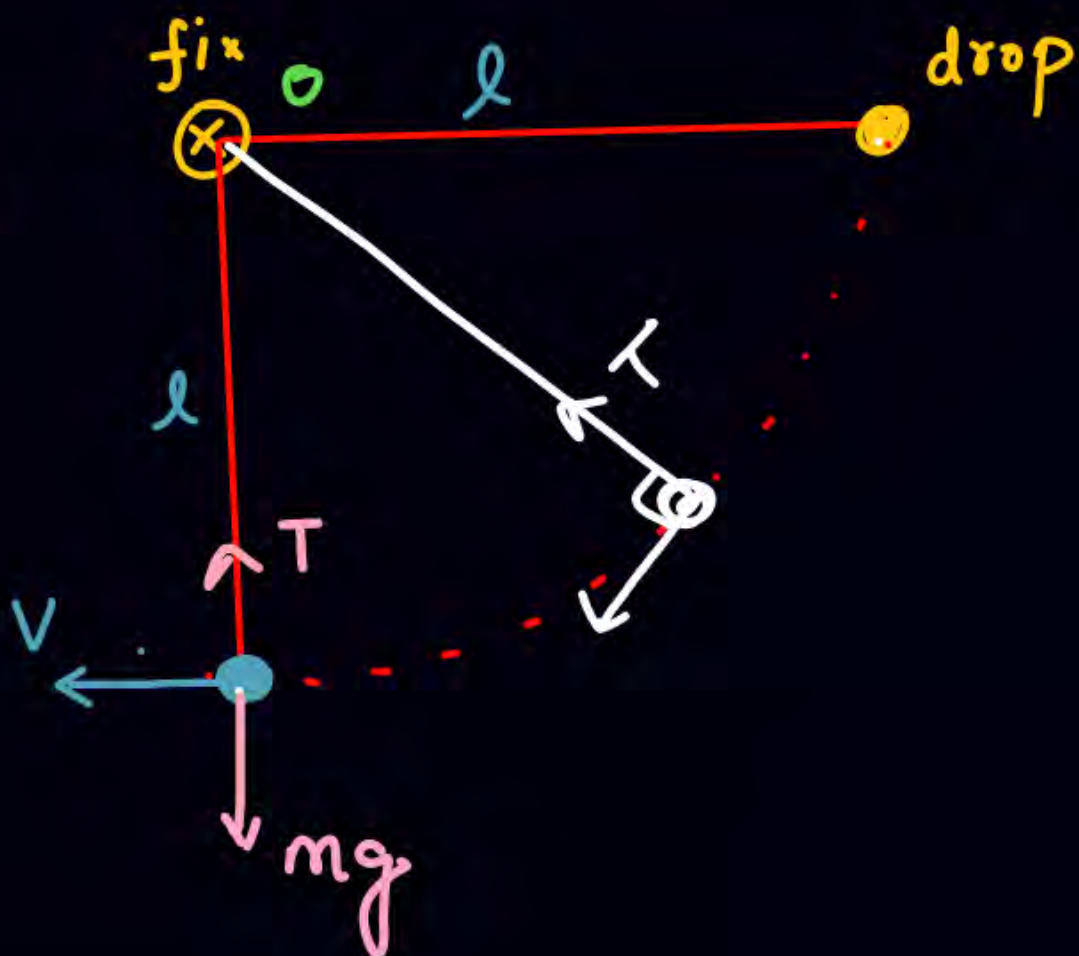




$$W_g + W_N = \Delta K E$$

$$mg(h_1 - h_2) + 0 = \frac{1}{2}mv_2^2 - 0$$

Q  
(likhna hai)



$$W_g + W_T = \Delta K.E.$$

$$mgl + 0 = \frac{1}{2}mv^2 - 0$$

$$v = \sqrt{2gl}$$

$$T - mg = \frac{mv^2}{R}$$

$$T - mg = \frac{m \cdot 2gl}{l}$$

$$T = 3mg$$



likhna hai

Q

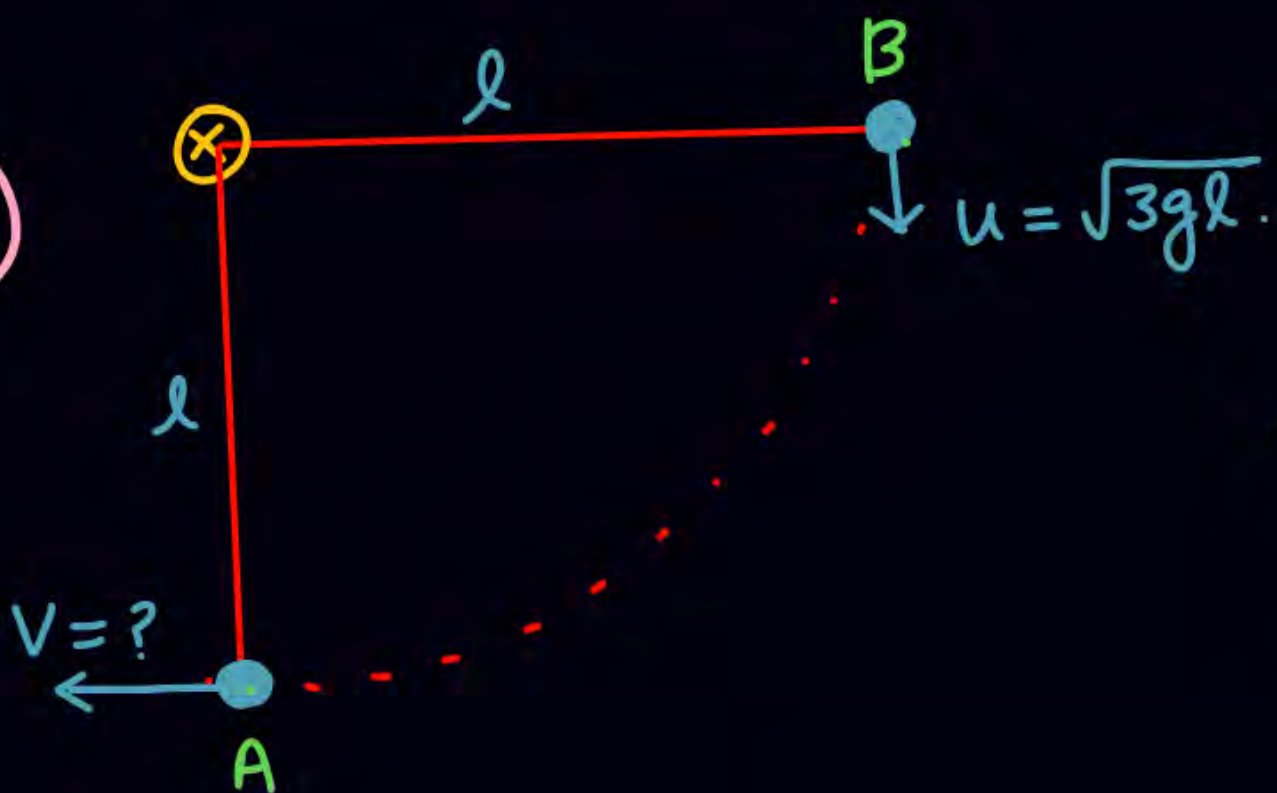


$$W_g + W_T = \Delta K.E.$$

$$+mgh + 0 = \frac{1}{2}mv^2 - 0$$

$$v = \sqrt{2gh}$$

Q  
(Likhna hai)



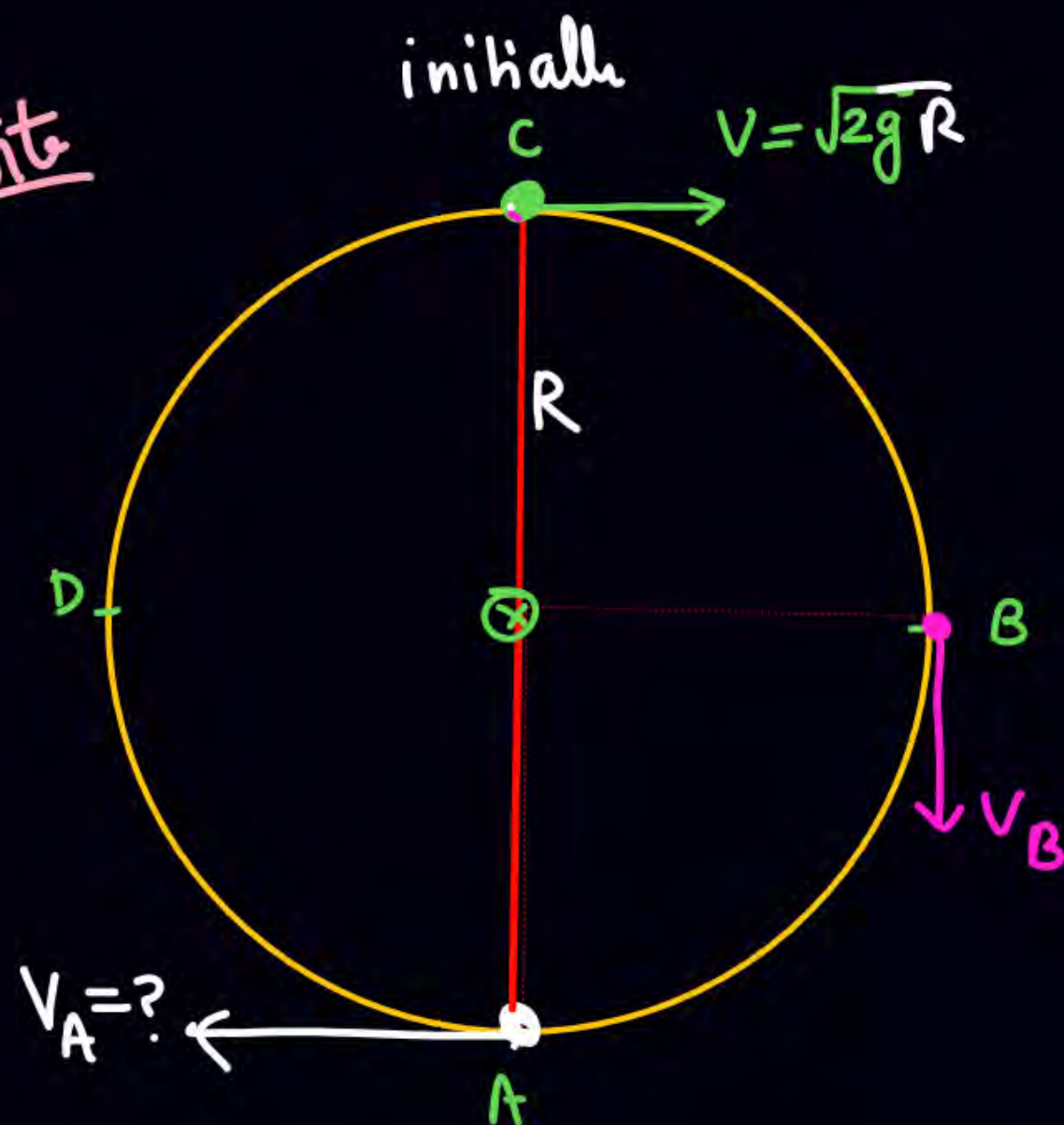
$$W_g + W_T = \Delta K.E.$$

$$+mgl + 0 = \frac{1}{2}mv^2 - \frac{1}{2}m \cdot 3gl$$

$$v = \sqrt{5gl}$$



Q  
Don't write



C → B (WET)

$$W_g + W_T = \Delta K \cdot \epsilon$$

$$+ mgR + 0 = \frac{1}{2}mv_B^2 - \frac{1}{2}m(2gR)$$

C → A

$$W_g + W_T = \Delta K \cdot \epsilon$$

$$mg2R + 0 = \frac{1}{2}mv_A^2 - \frac{1}{2}m(2gR)$$

Don't write

$Q$

$R$

drop

$m$

$R$

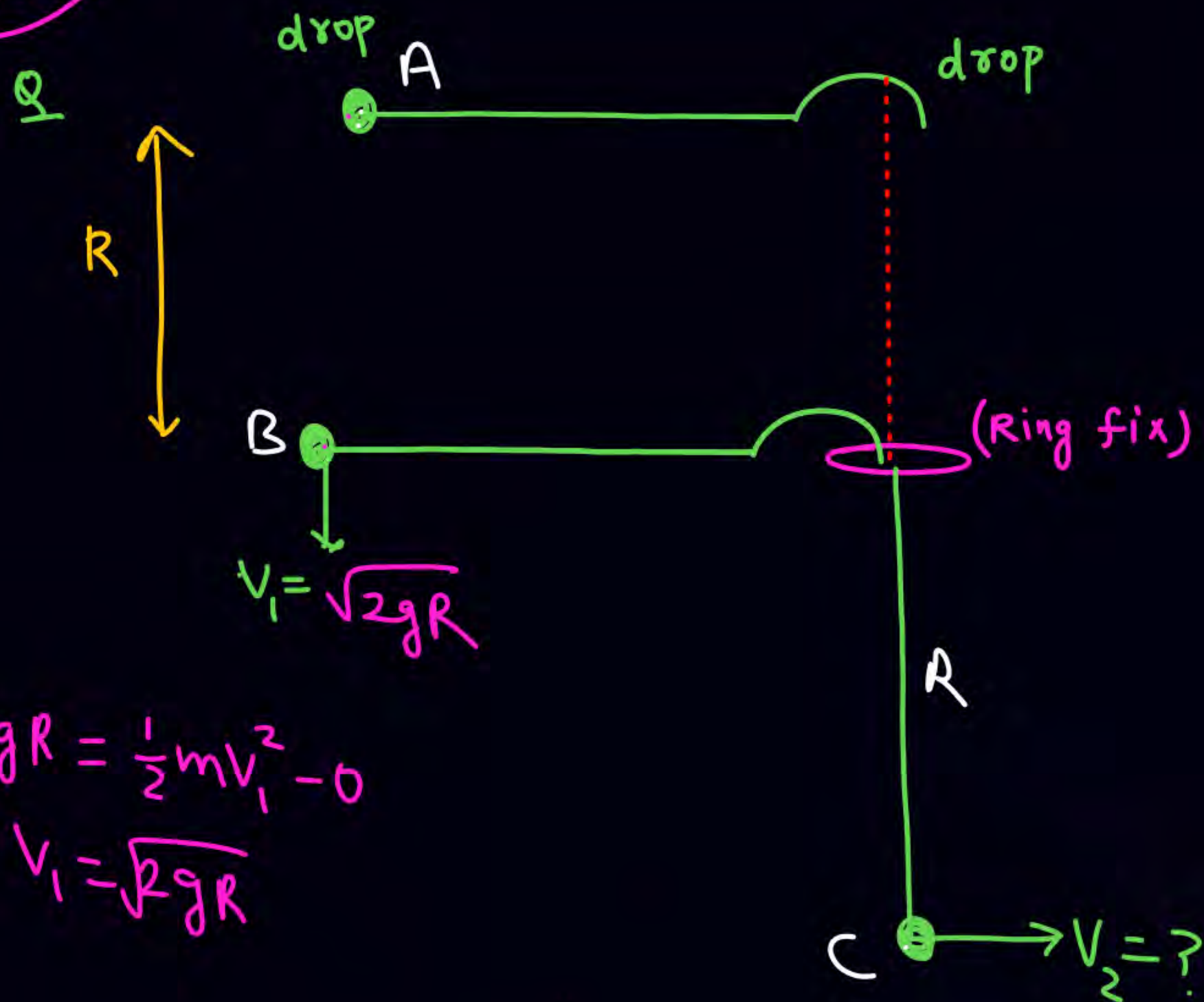
drop

$G$  (Ring fix)





copy X



$$mgR = \frac{1}{2}mv_1^2 - 0$$

$$v_1 = \sqrt{2gR}$$

$$\frac{A \longrightarrow C}{}$$

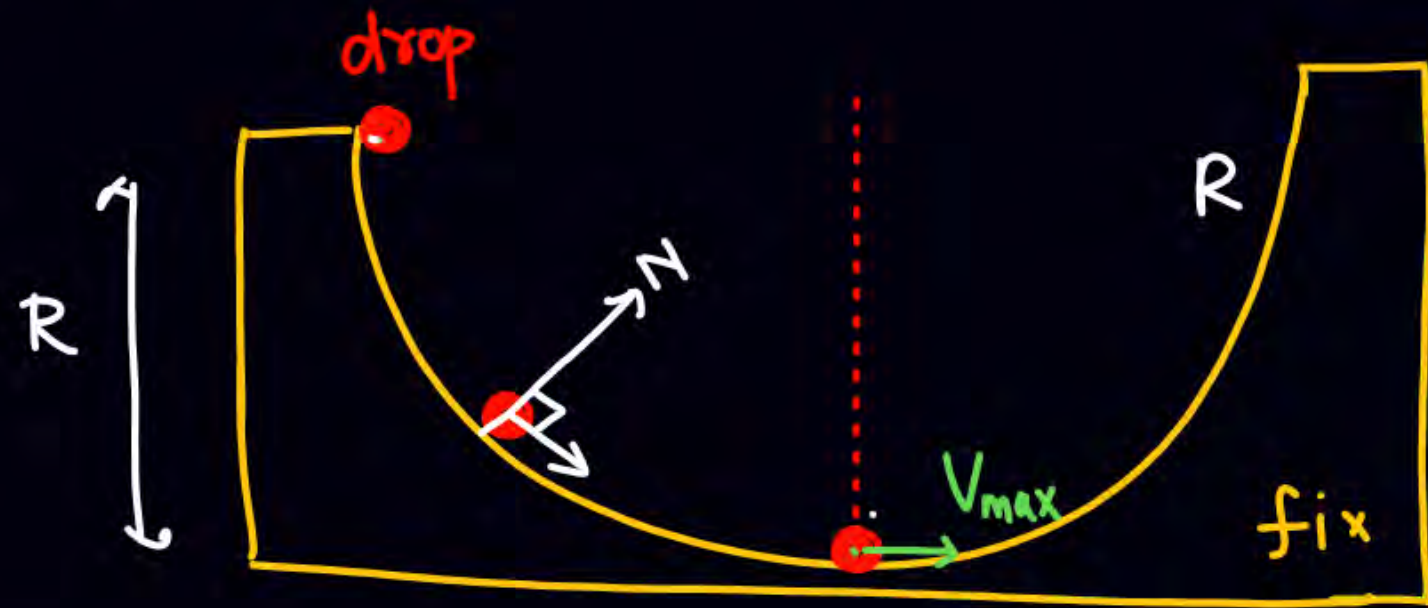
$$W_g + W_f = \Delta K.E.$$

$$mg \cdot 2R + 0 = \frac{1}{2}mv^2 - 0$$

$$v = \sqrt{2gR}$$

Likhna hai

Q



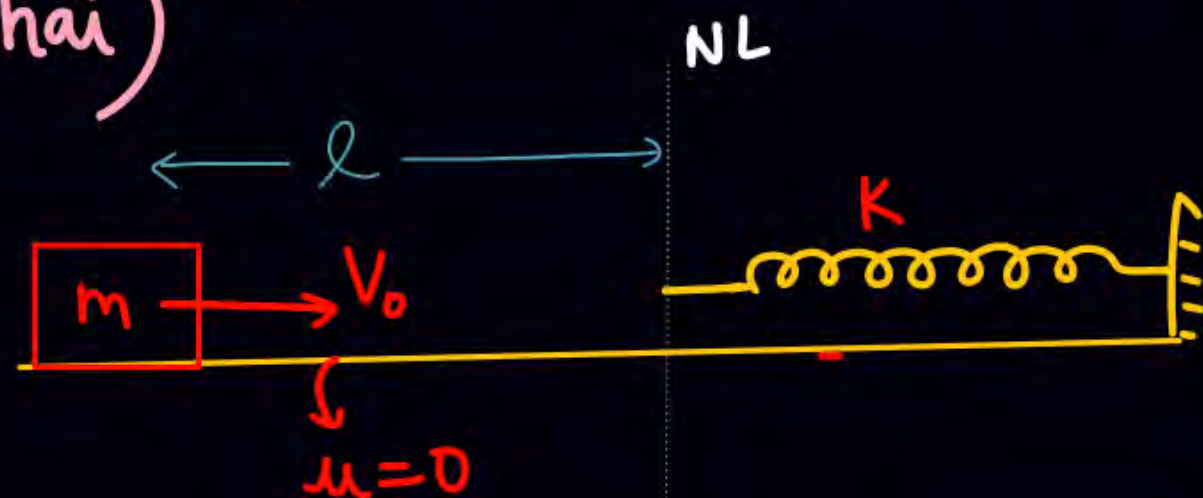
$$W_g + W_N = \Delta K.E$$
$$+ mgR + 0 = \frac{1}{2}mv^2 - 0$$
$$v = \sqrt{2gR}$$

①  $V_{max}$  of particle  
&  $N$  at that point



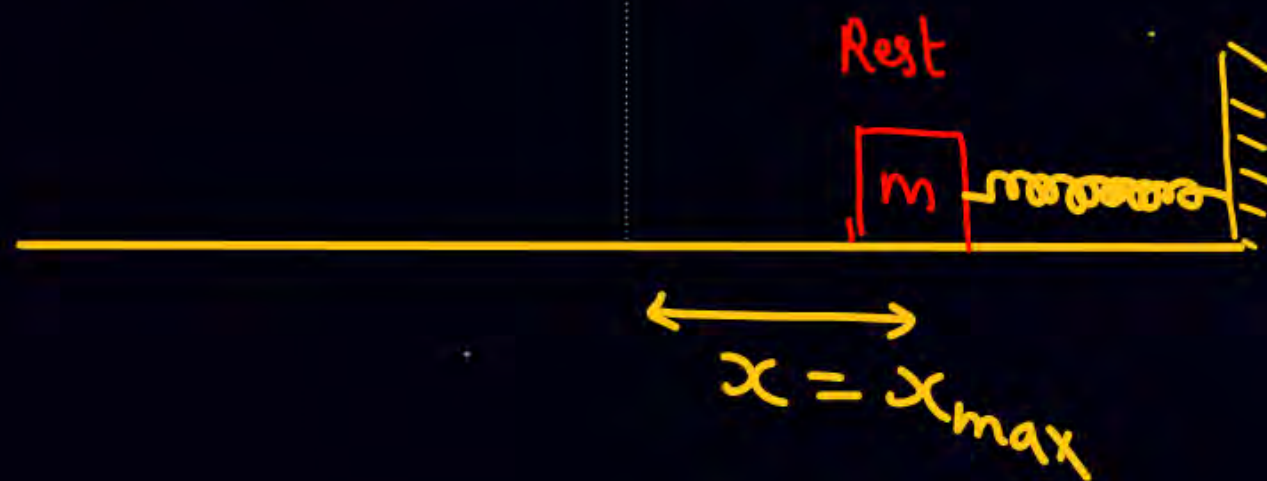
Spring वाले Ques max compression/elongation  
(Likhna hai)

Q



Find max compression in spring

Sol<sup>n</sup>



$$\textcircled{1} \quad W_g + W_N + W_{sp} = \Delta K \cdot \epsilon = K_f - K_i$$

$$0 + 0 - \frac{1}{2} K (x_{\max}^2 - 0) = 0 - \frac{1}{2} m v_0^2$$

$$x_{\max} = \sqrt{\frac{m}{K}} v_0$$

② Repeat the above ques if  $\mu \neq 0$

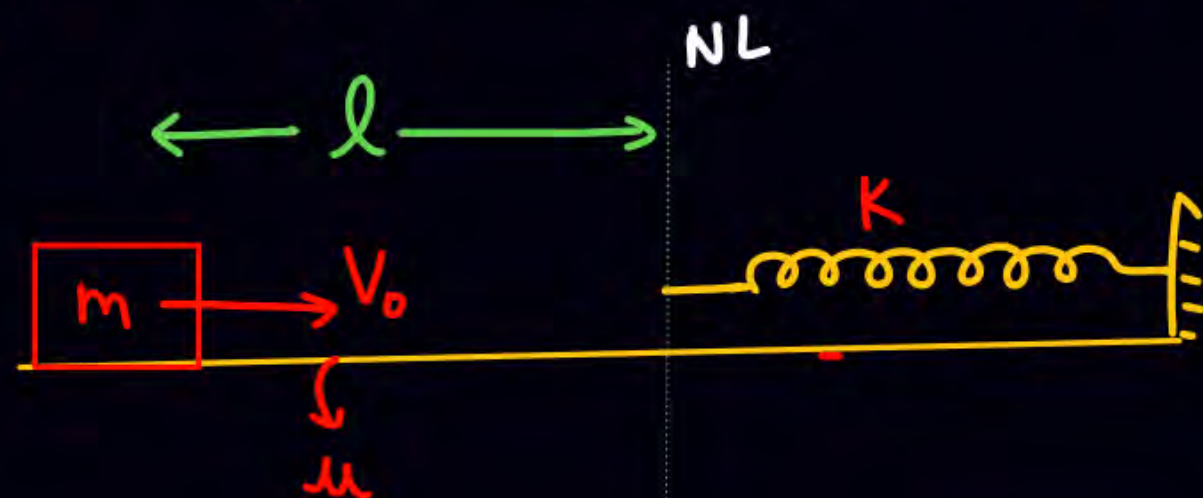
$$W_g + W_N + W_{sp} + W_f = \Delta K \epsilon$$

$$0 + 0 - \frac{1}{2} K (x_{\max}^2 - 0^2) - \mu m g (l + x) = 0 - 0$$

Spring वाले Ques max compression/elongation

Don't write

Q

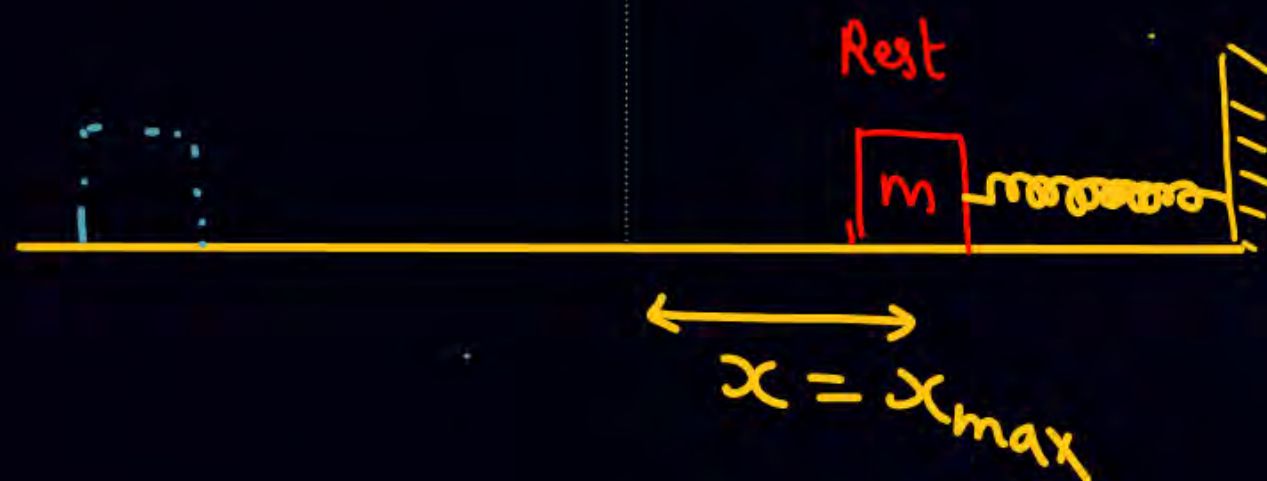


$$W_g + W_N + W_f + W_{sp} = \Delta K.E.$$

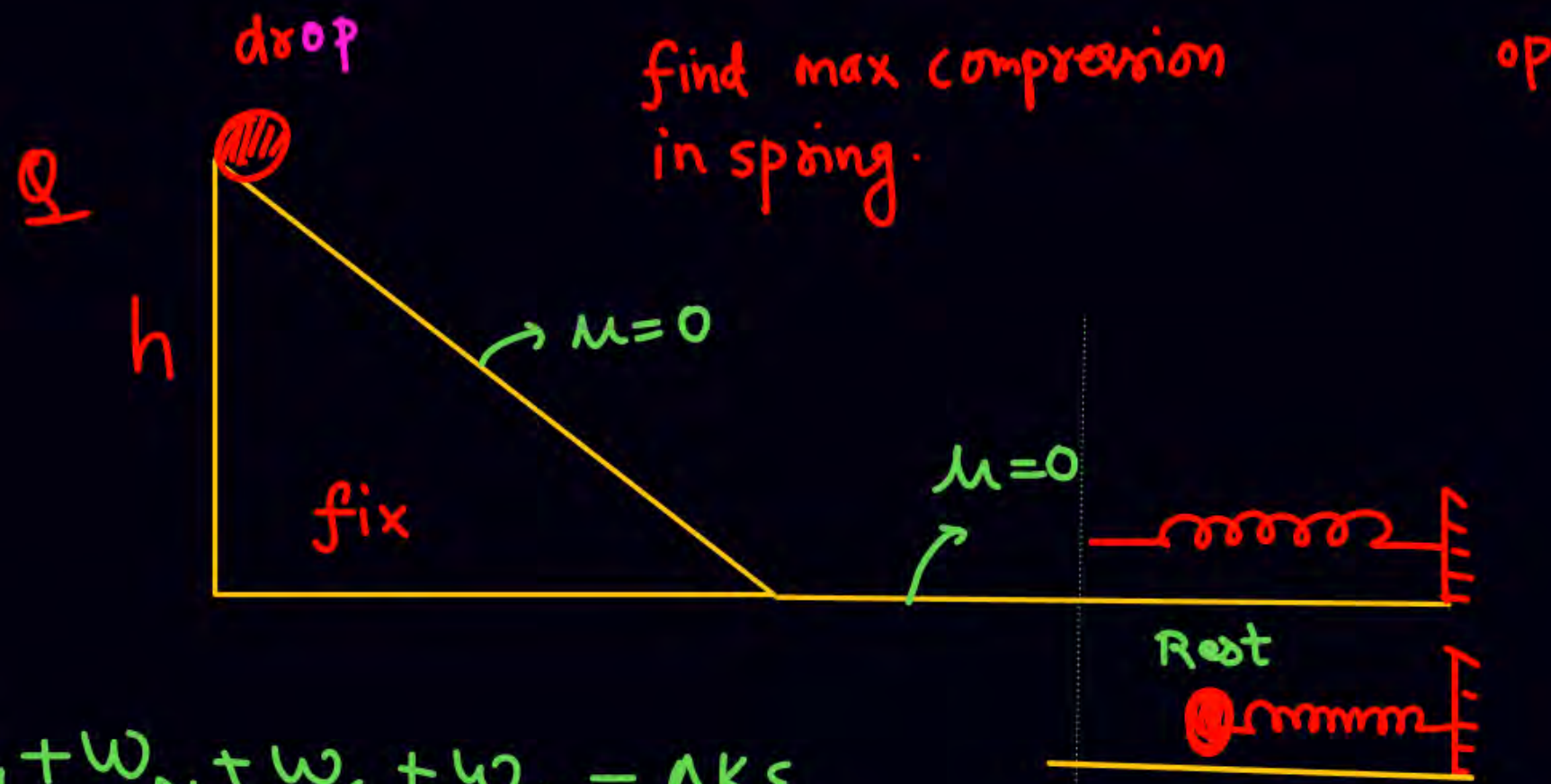
$$0 + 0 - \mu mg(l + x) - \frac{1}{2}K(x^2 - 0) = 0 - \frac{1}{2}mv^2$$

Find max compression in spring

Sol<sup>n</sup>



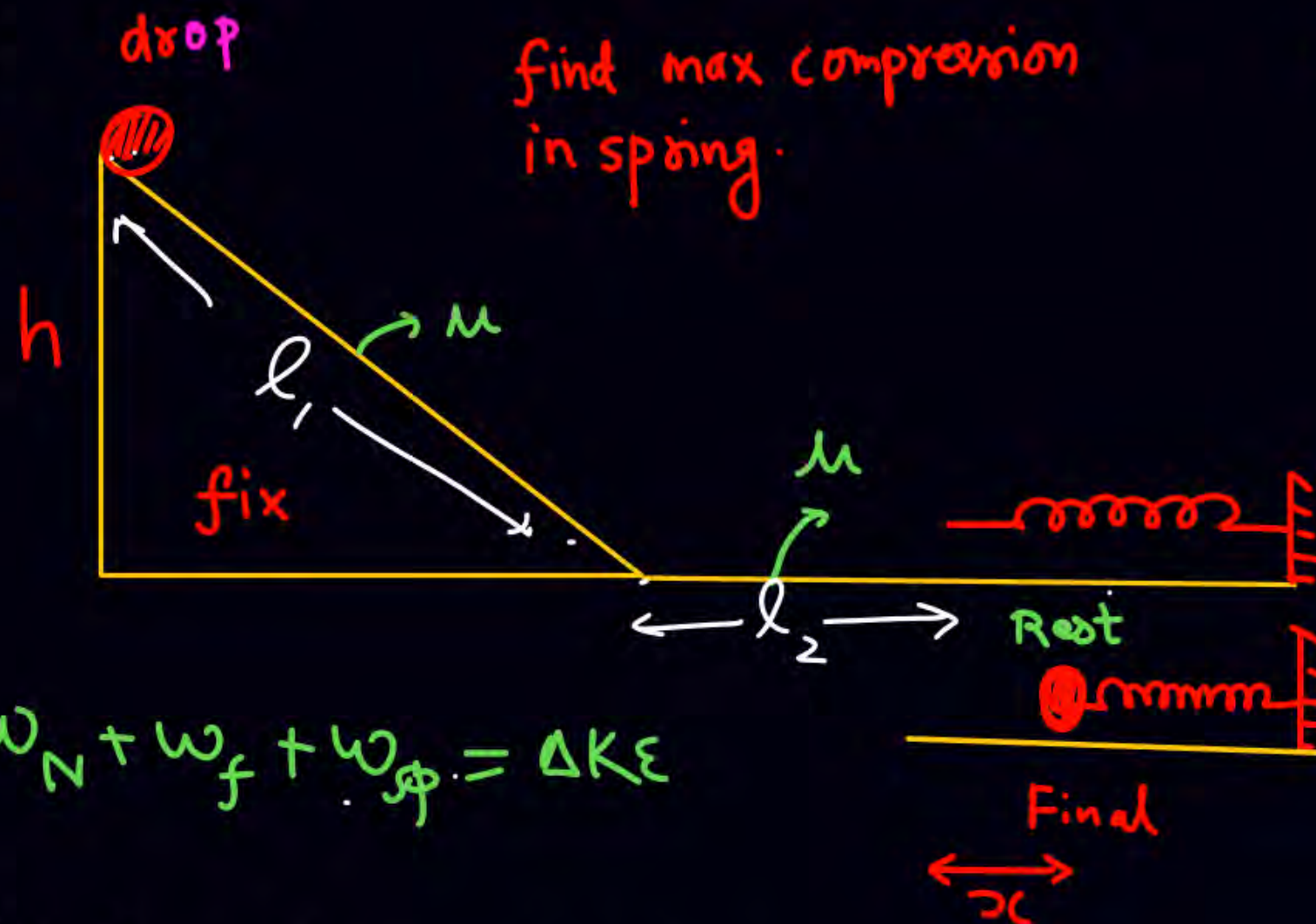




$$W_g + W_N + W_f + W_{sp} = \Delta KE$$

$$+mgh + 0 + 0 - \frac{1}{2}K(x^2 - 0^2) = 0 - 0$$

SSSA  
Q  
Mechanics

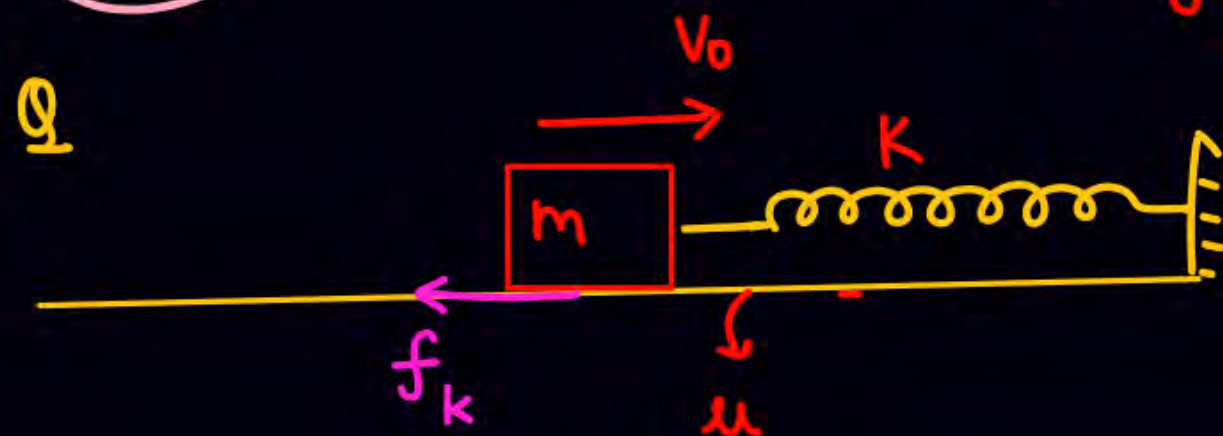


$$W_g + W_N + W_f + W_{sp} = \Delta KE$$

$$mgh + 0 - \mu mg \cos \theta l_1 - \mu mg(l_2 + x) - \frac{1}{2}k(x^2 - 0) = 0 - 0$$

Likhna hai

find max compression in spring



$$(W D)_{all} = \Delta K \cdot E$$

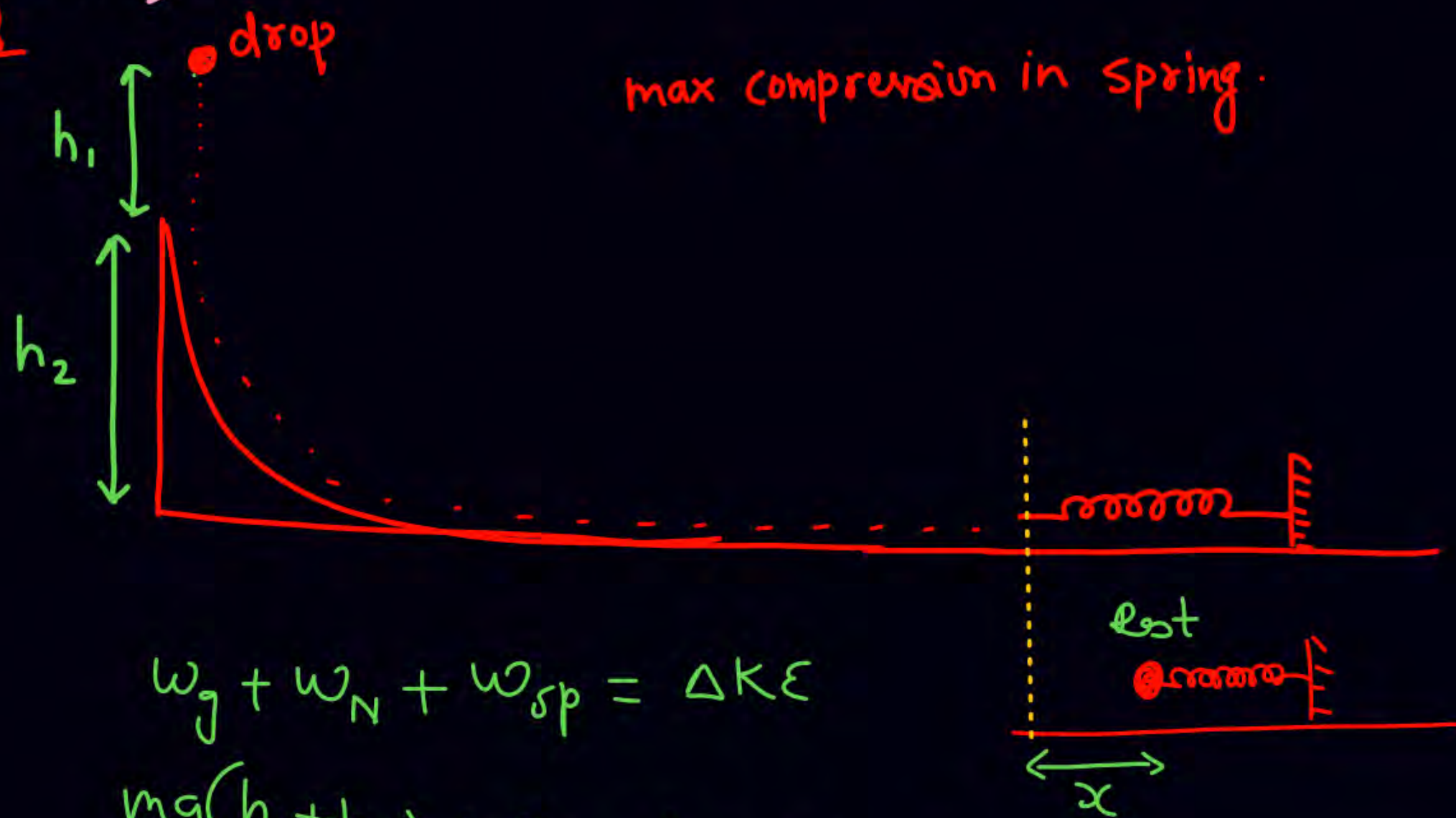
$$W_g + W_N + W_f + W_{sp} = \Delta K \cdot E$$

$$0 + 0 - \mu mg x_{max} - \frac{1}{2} K (x_{max}^2 - 0^2) = 0 - \frac{1}{2} m v^2$$



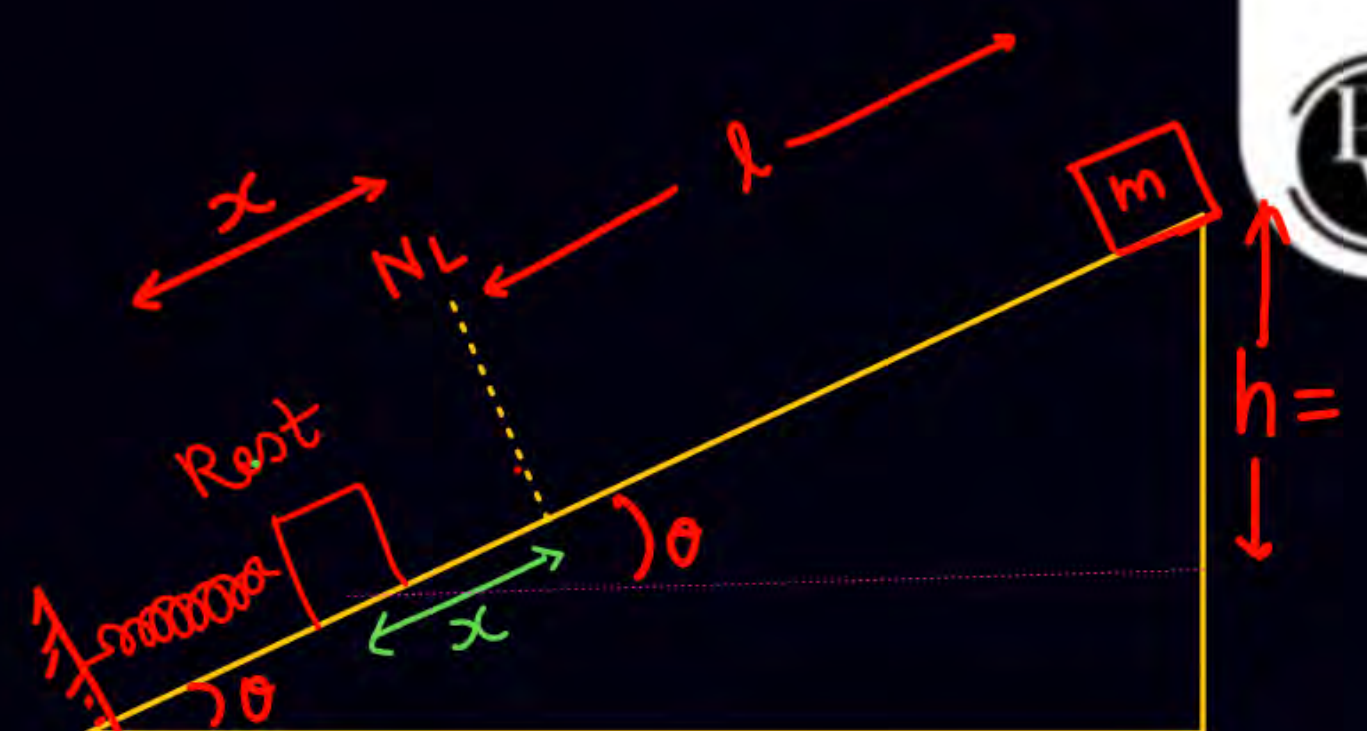
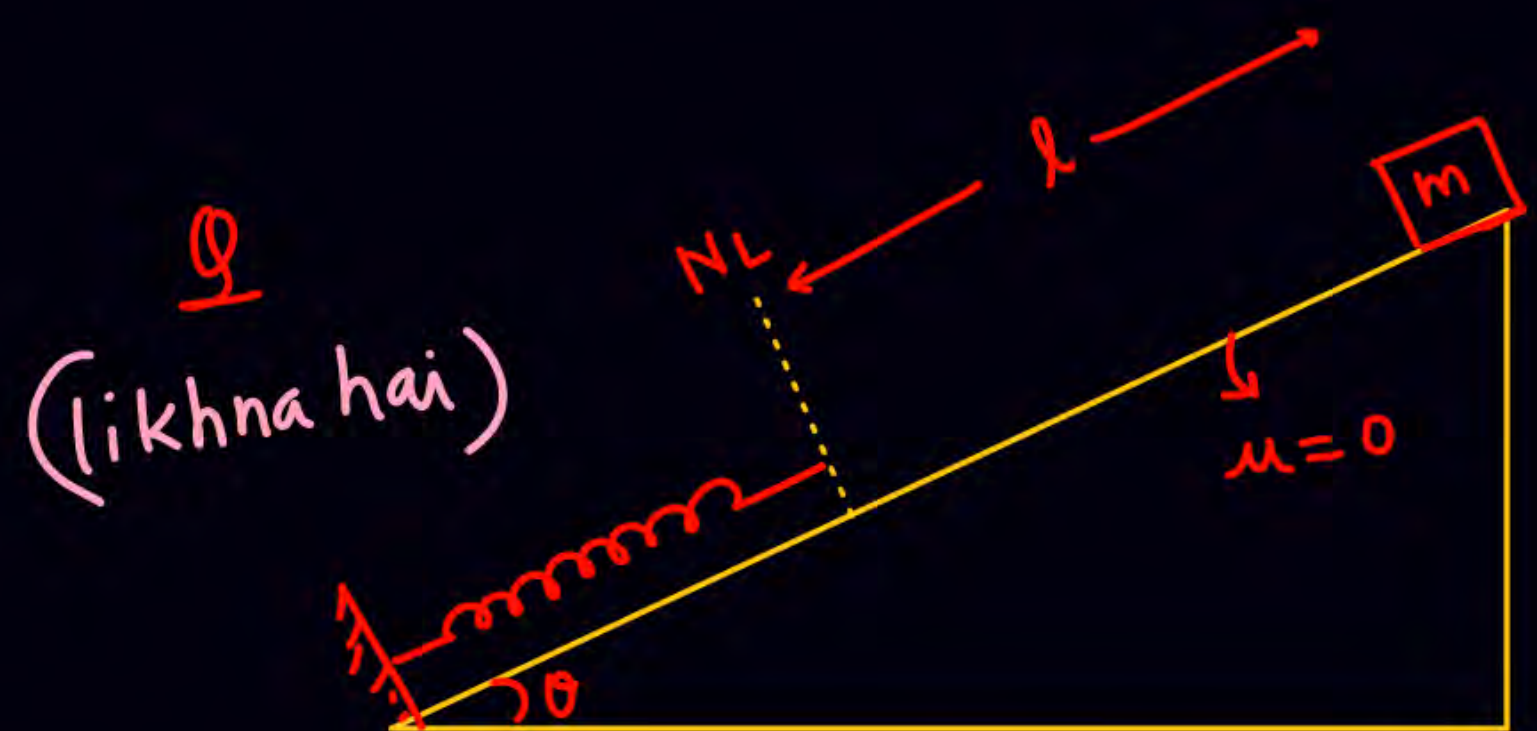
(Likhna hai)

max compression in spring.



$$W_g + W_N + W_{sp} = \Delta KE$$

$$mg(h_1 + h_2) + 0 - \frac{1}{2}K(x^2 - 0^2) = 0 - 0$$



(max compression in spring)

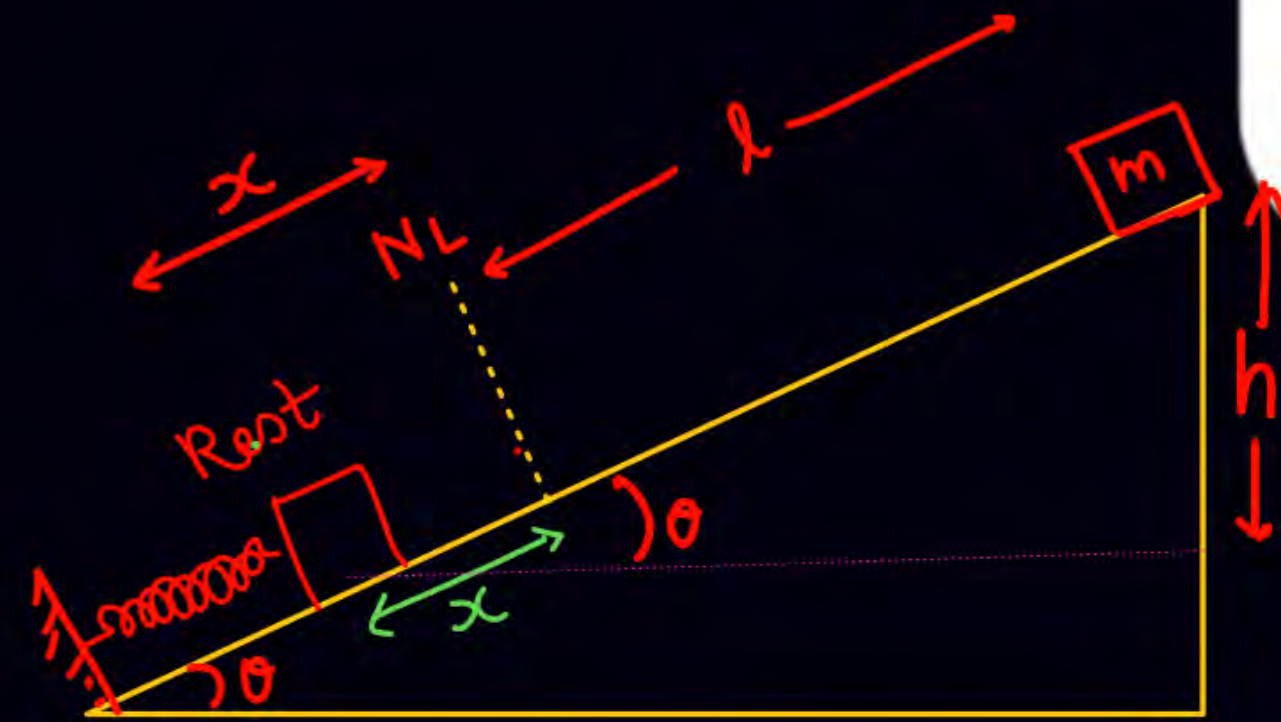
$$W_g + W_N + W_f + W_{sp} = \Delta K.E. \quad h = (l+x)\sin\theta$$

$$mgh + 0 + 0 - \frac{1}{2}K(x^2 - 0^2) = 0 - 0$$

$$mg(l+x)\sin\theta + 0 + 0 - \frac{1}{2}K(x^2 - 0^2) = 0 - 0$$

b) Repeat the above ques if friction is present  
sol<sup>n</sup> → next page par hai but diagram downa mat bnana.





(max compression in spring)

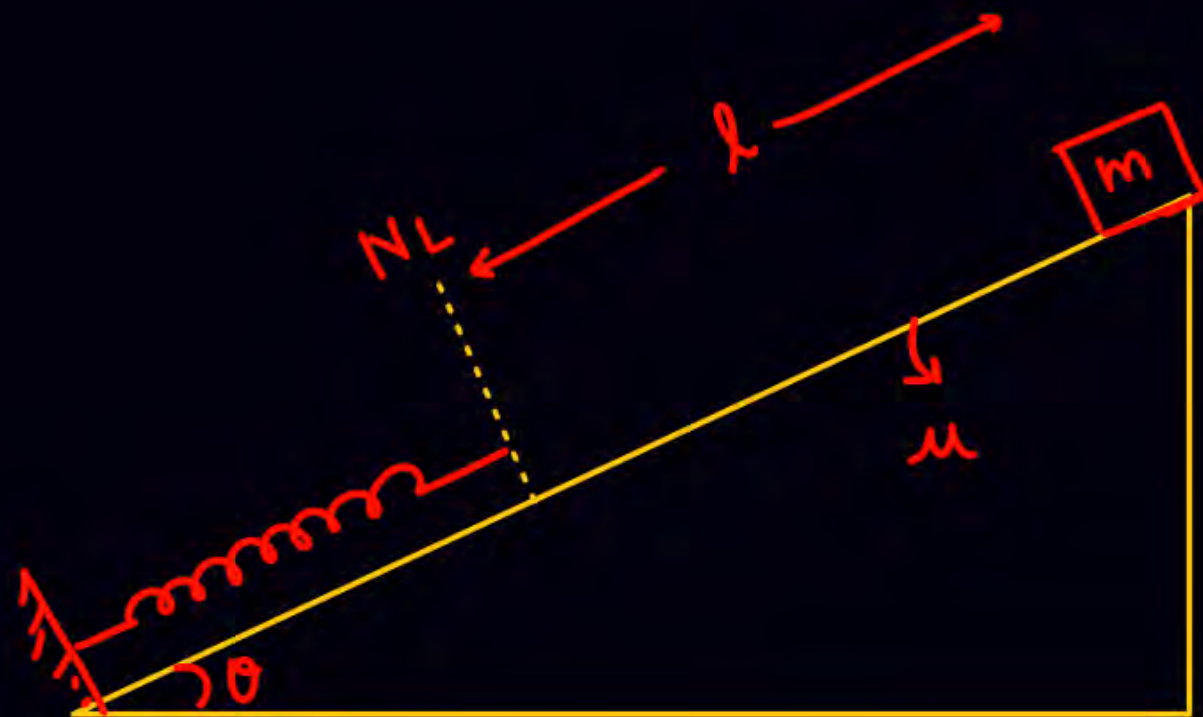
$$W_g + W_N + W_f + W_{sp} = \Delta K.E. \quad h = (l+x)\sin\theta$$

$$+ mg(l+x)\sin\theta + 0 - \mu mg\cos\theta(l+x) - \frac{1}{2}K(x^2 - 0^2) = 0 - 0$$

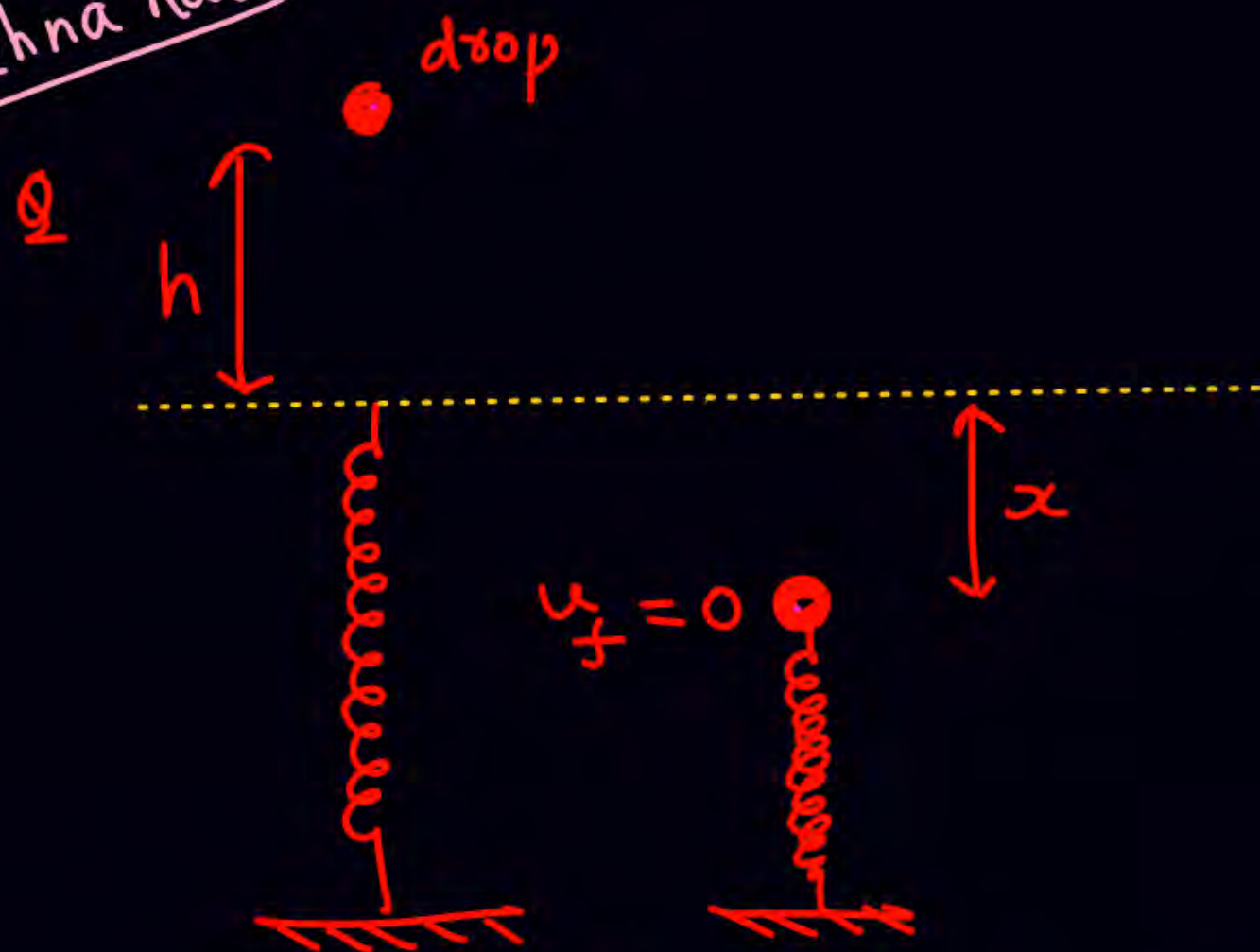
only this likhna



Q



likhna hai

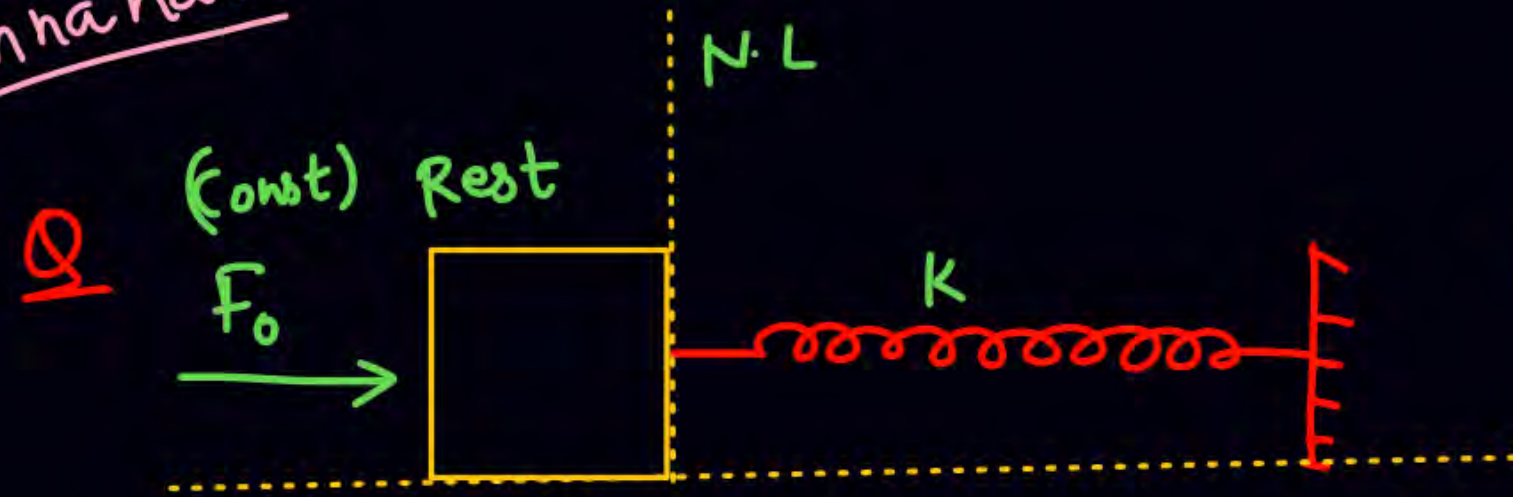


Max compression in spring will be.

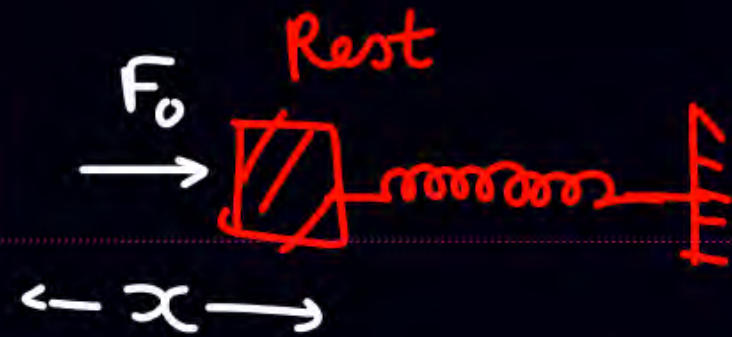
$$(WD)_g + (WD)_s = \Delta K \cdot \epsilon.$$

$$mg(h+x) - \frac{1}{2}K(x^2-0) = 0-0$$

Likhna hai



max compression in spring.



①  $\mu = 0$

$$W_g + W_N + W_f + W_{sp} + W_{F_0} = \Delta K \cdot \epsilon$$

$$0 + 0 + 0 - \frac{1}{2}K(x^2 - 0) + F_0 x = 0 - 0$$

JA

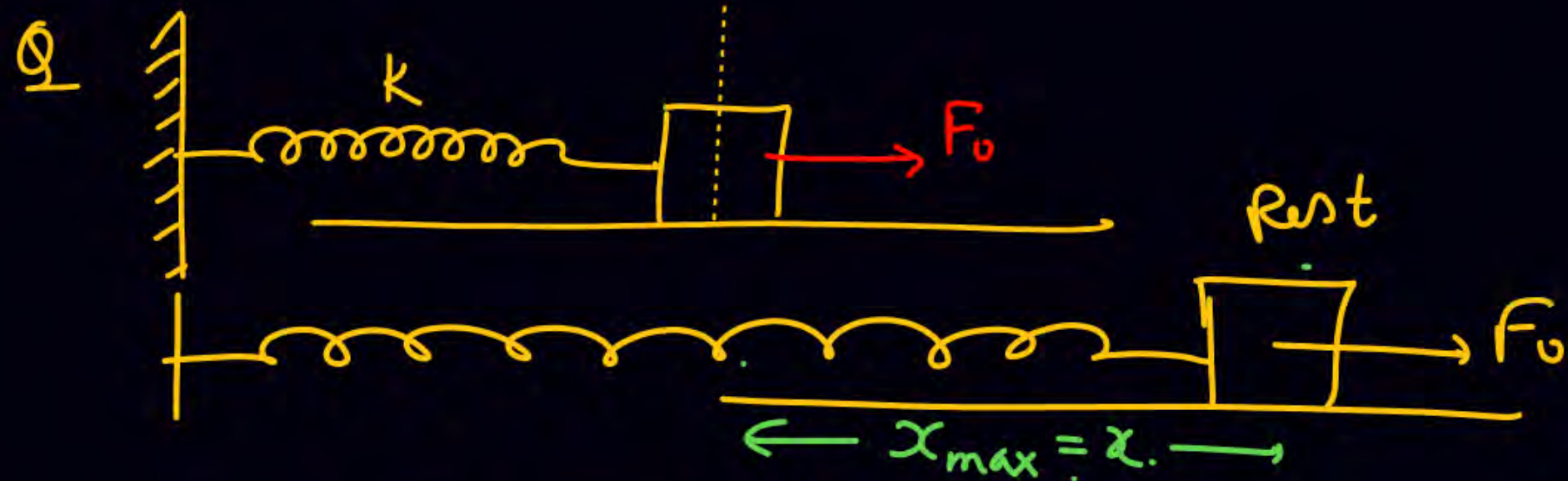
②  $\mu$  होता

$$W_g + W_N + W_f + W_{sp} + W_{F_0} = \Delta K \cdot \epsilon$$

$$0 + 0 - \mu mg x - \frac{1}{2}K(x^2 - 0^2) + F_0 x = 0 - 0$$







max elongation in spring

①  $\mu = 0$

$$W_g + W_N + W_f + W_F + W_{sp} = \Delta KE$$

$$0 + 0 + 0 + F_0 x - \frac{1}{2} k (x^2 - 0^2) = 0 - 0$$

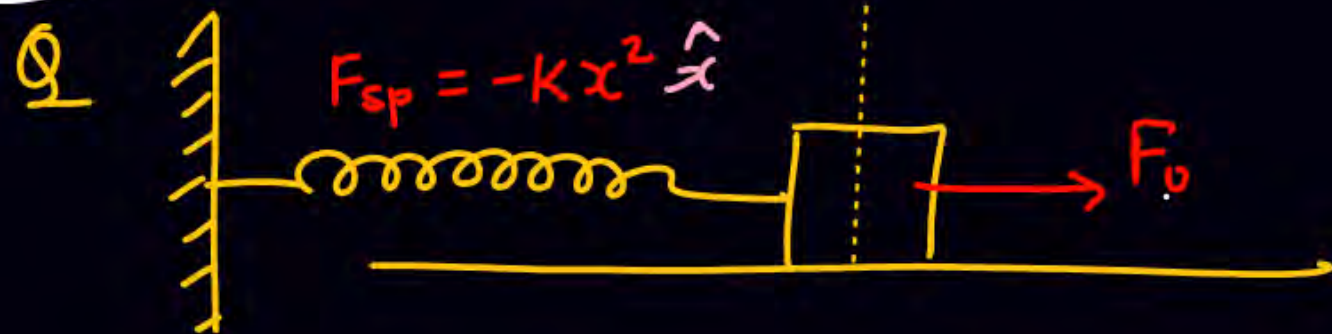
$$x = \frac{2F_0}{k}$$

②  $\mu \neq 0$

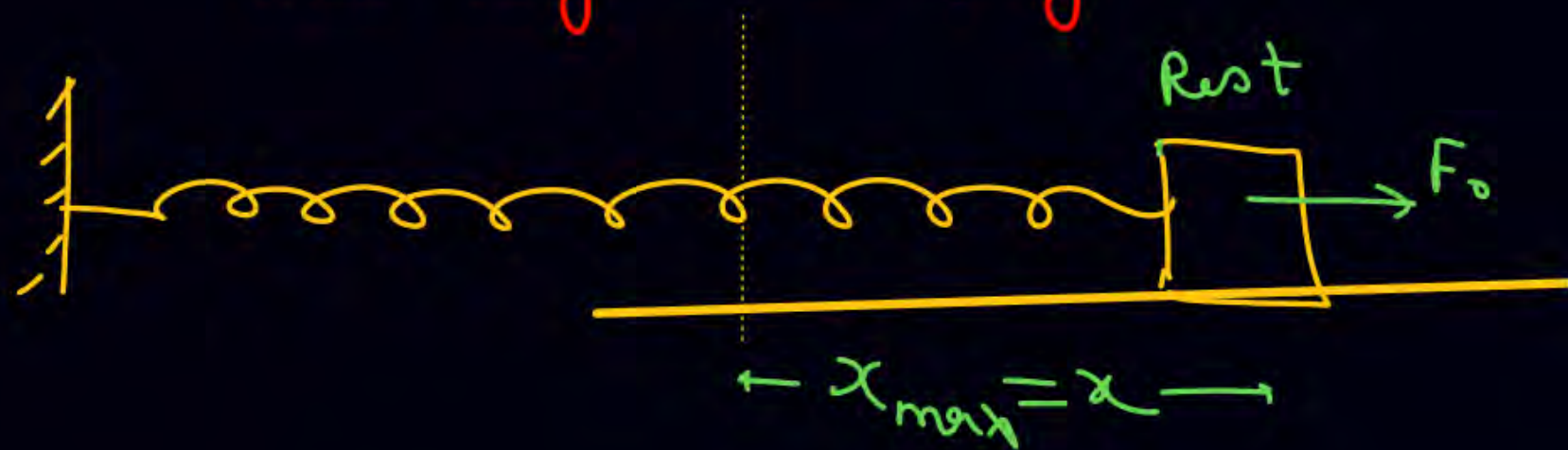
$$W_g + W_N + W_f + W_F + W_{sp} = \Delta KE$$

$$0 + 0 - \mu mg x + F_0 x - \frac{1}{2} k (x^2 - 0^2) = 0 - 0$$

SSS0 (likhna hai)



max elongation in spring



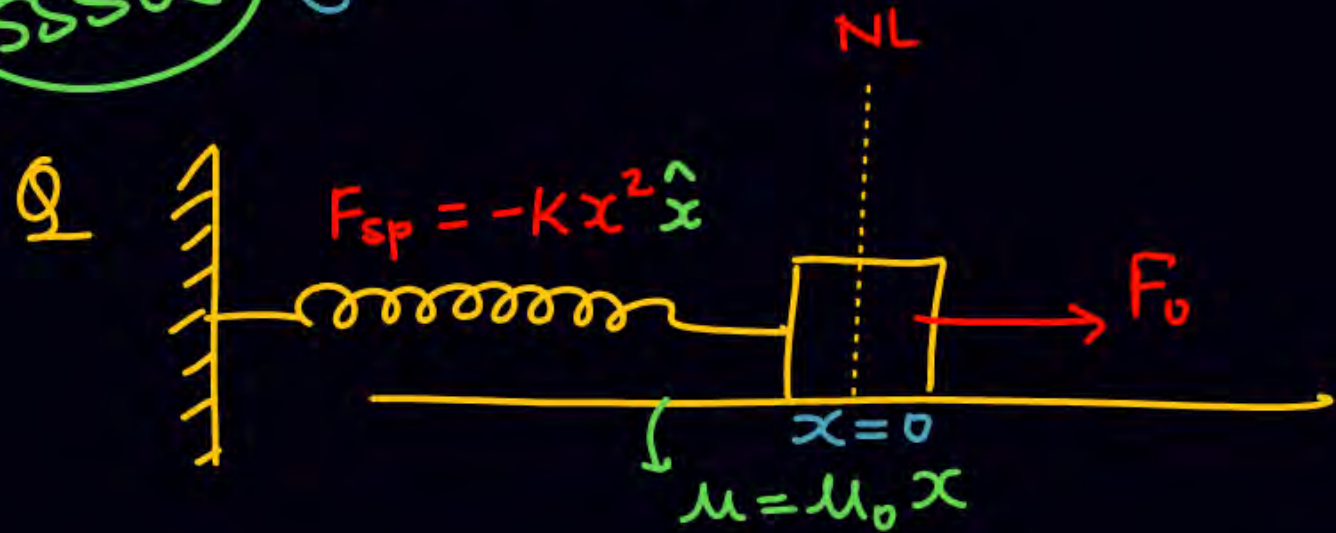
$$W_g + W_N + W_f + W_{F_0} + W_{sp} = \Delta K + \Delta U$$

$$0 + 0 + 0 + F_0 x - \int_0^x kx^2 dx = 0 - 0$$

$$\begin{aligned} (W)_{sp} &= \int F \cdot dx \\ &= \int -kx^2 dx \end{aligned}$$



SSSQ (likh na hai)



max elongation in spring

$$\begin{aligned} w_f &= \int F dx = - \int \mu mg dx \\ &= - \int_0^x \mu_0 x mg dx \end{aligned}$$

$$w_g + w_N + w_f + w_{sp} + w_{F_0} = \Delta K \cdot E.$$

$$\begin{aligned} 0 + 0 &- \int_0^x \mu_0 x mg dx - \int_0^x Kx^2 dx \\ &+ F_0 x = 0 - 0 \end{aligned}$$

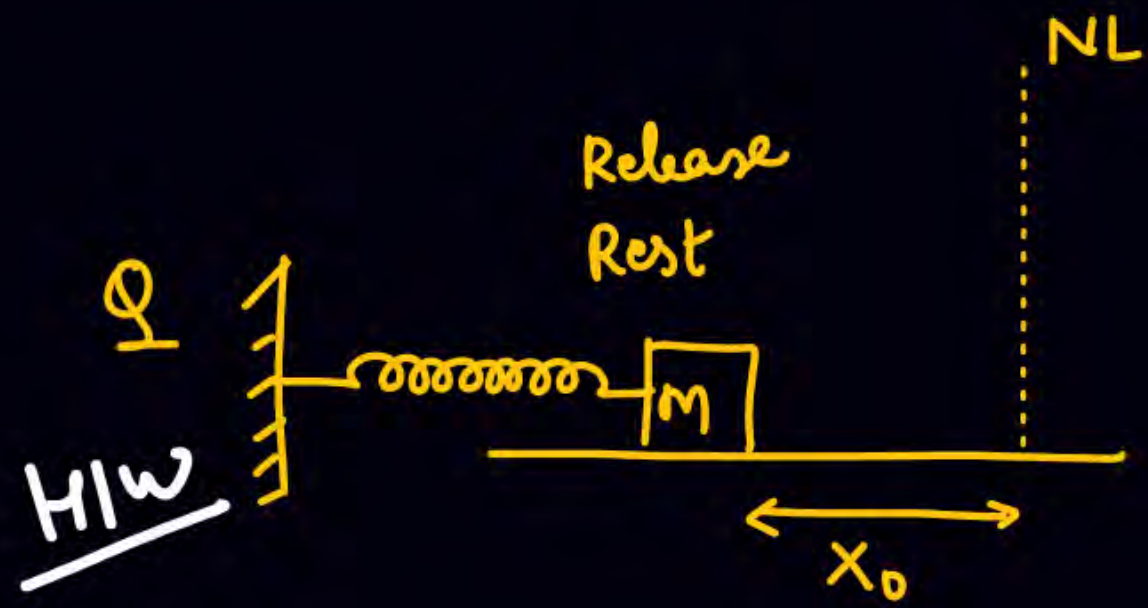


Q  
H/w  
rough copy

drop  
m



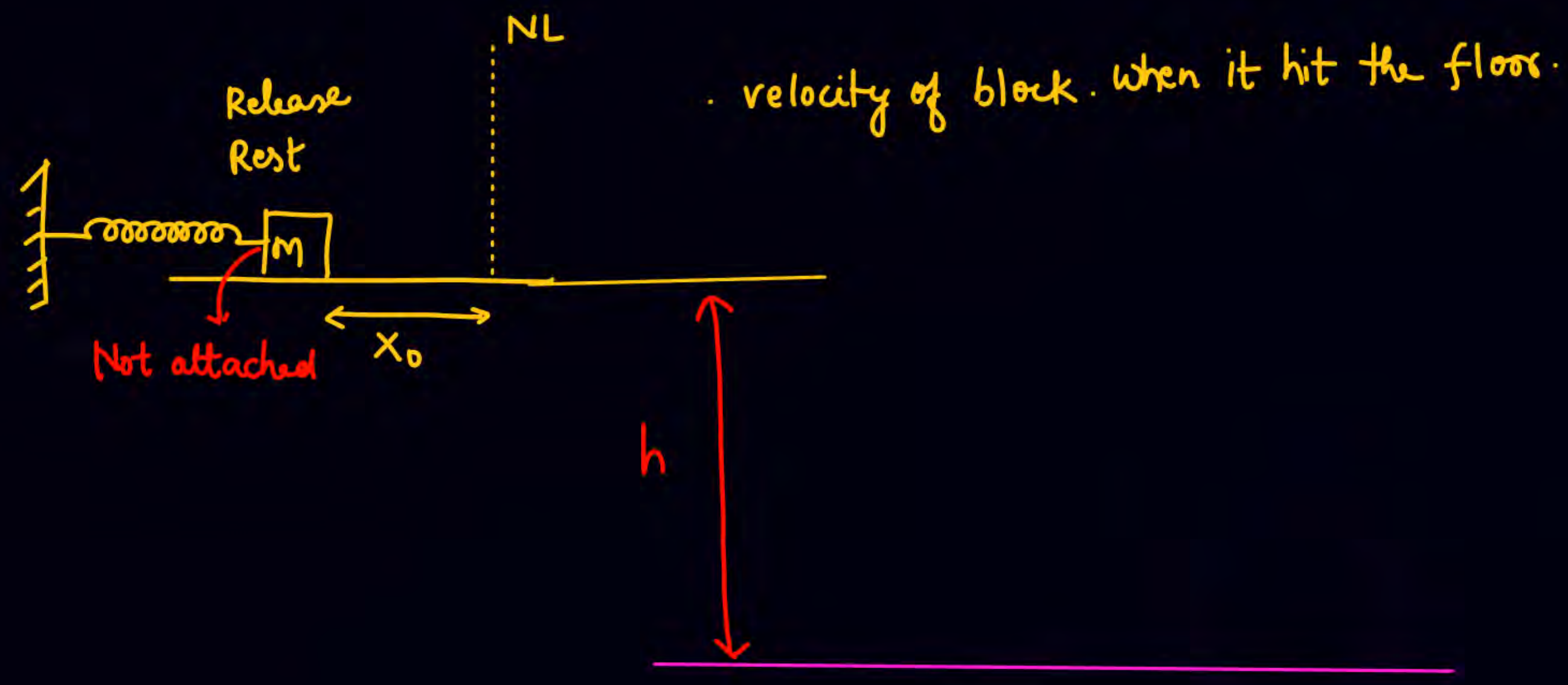
max compression in spring



max. velocity of block.



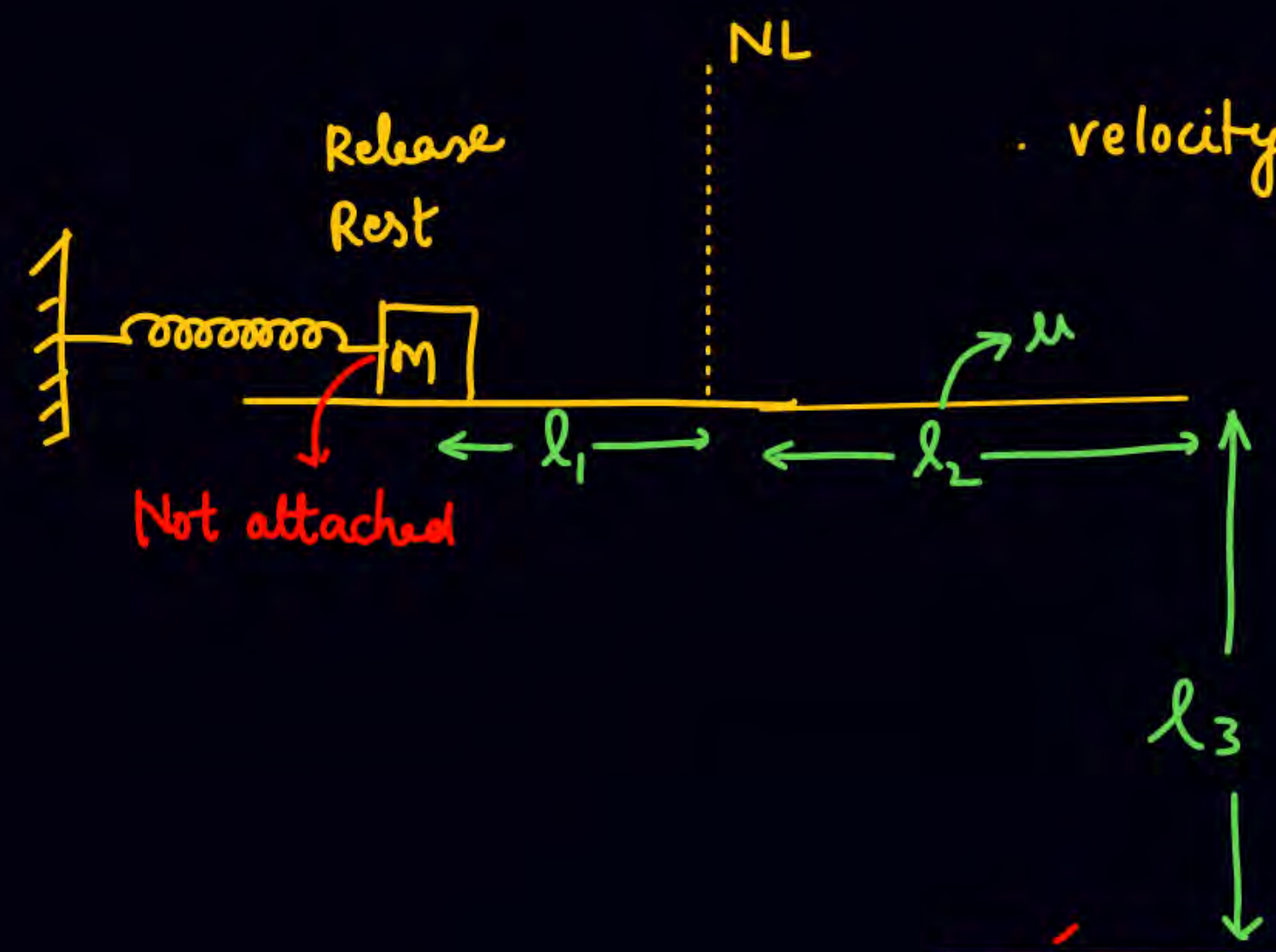
H/w 2



• velocity of block when it hit the floor.

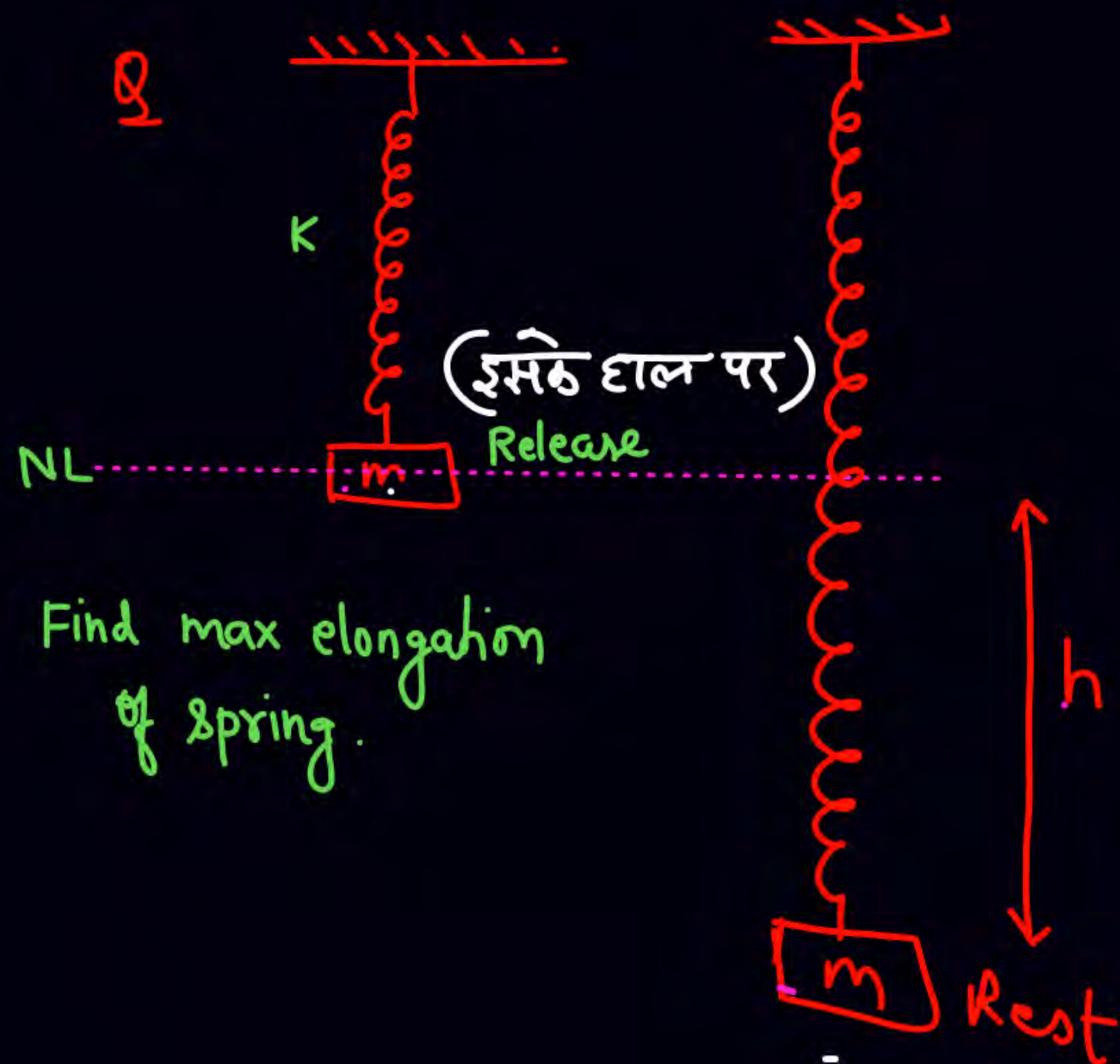


Q  
μ/w



velocity of block when it hit the floor.





$$W_g + W_{sp} = \Delta K.E$$

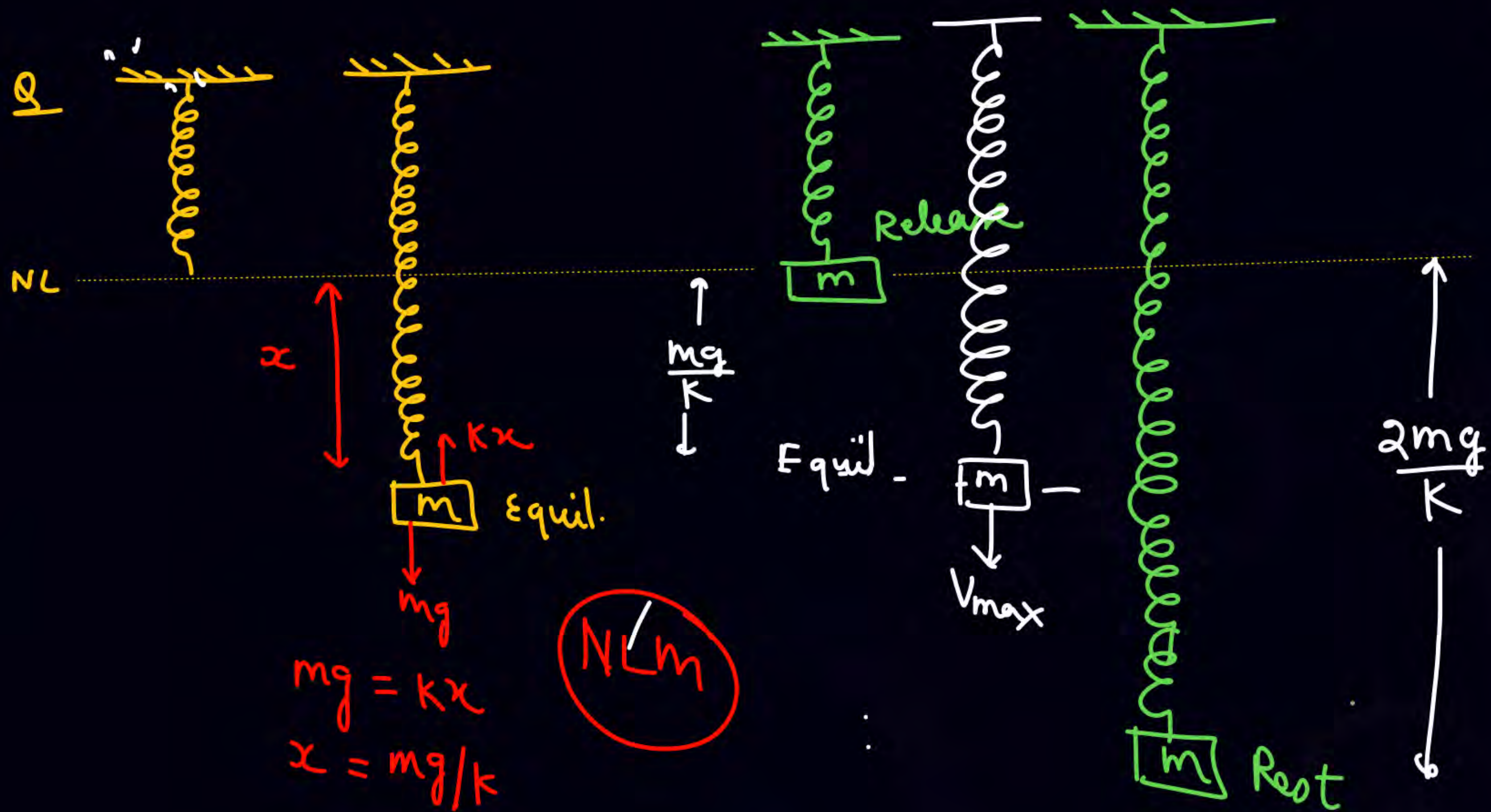
$$+ mgh - \frac{1}{2}K(h^2 - 0^2) = 0 - 0$$

$$h = x_{\max} = \frac{2mg}{K}$$

Doubt

$$mg = Kx$$

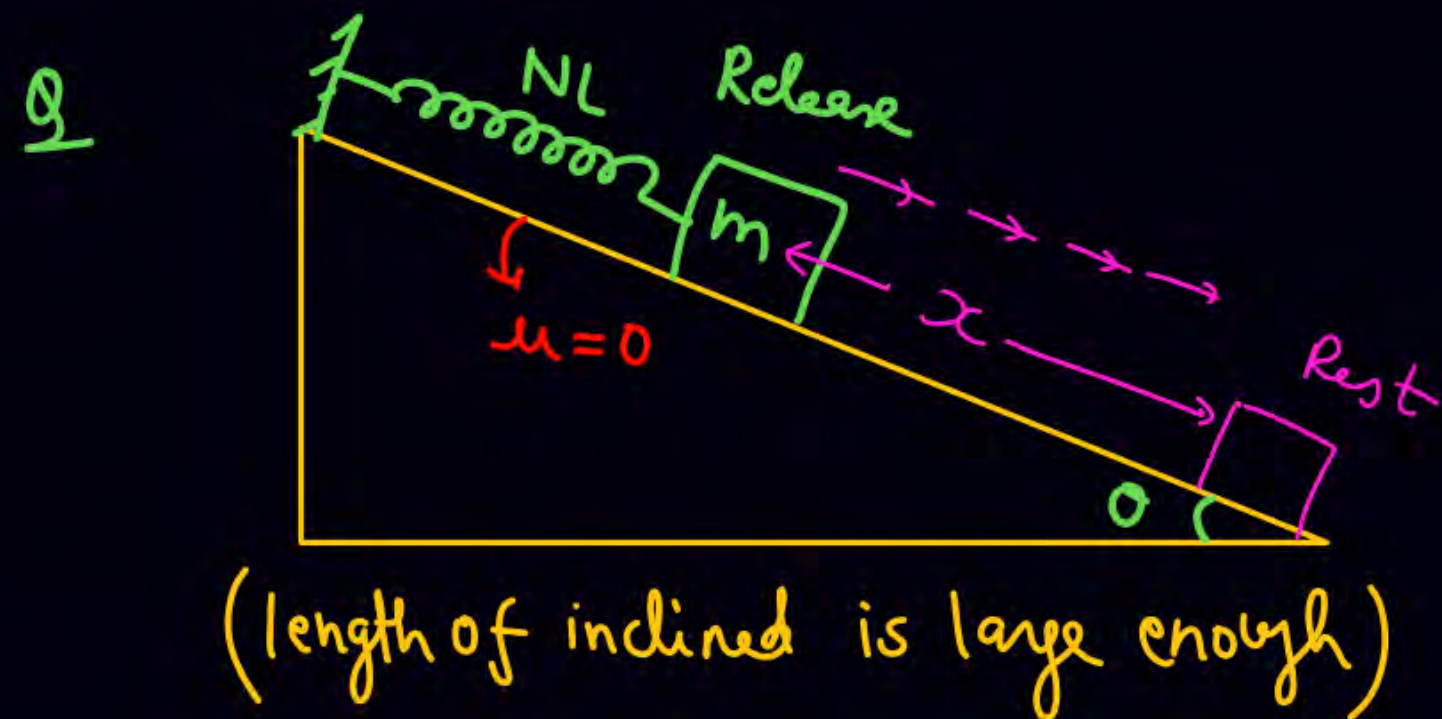
$$x = \frac{mg}{K}$$





Find max elongation  
of spring.

$$h = x \sin \theta$$

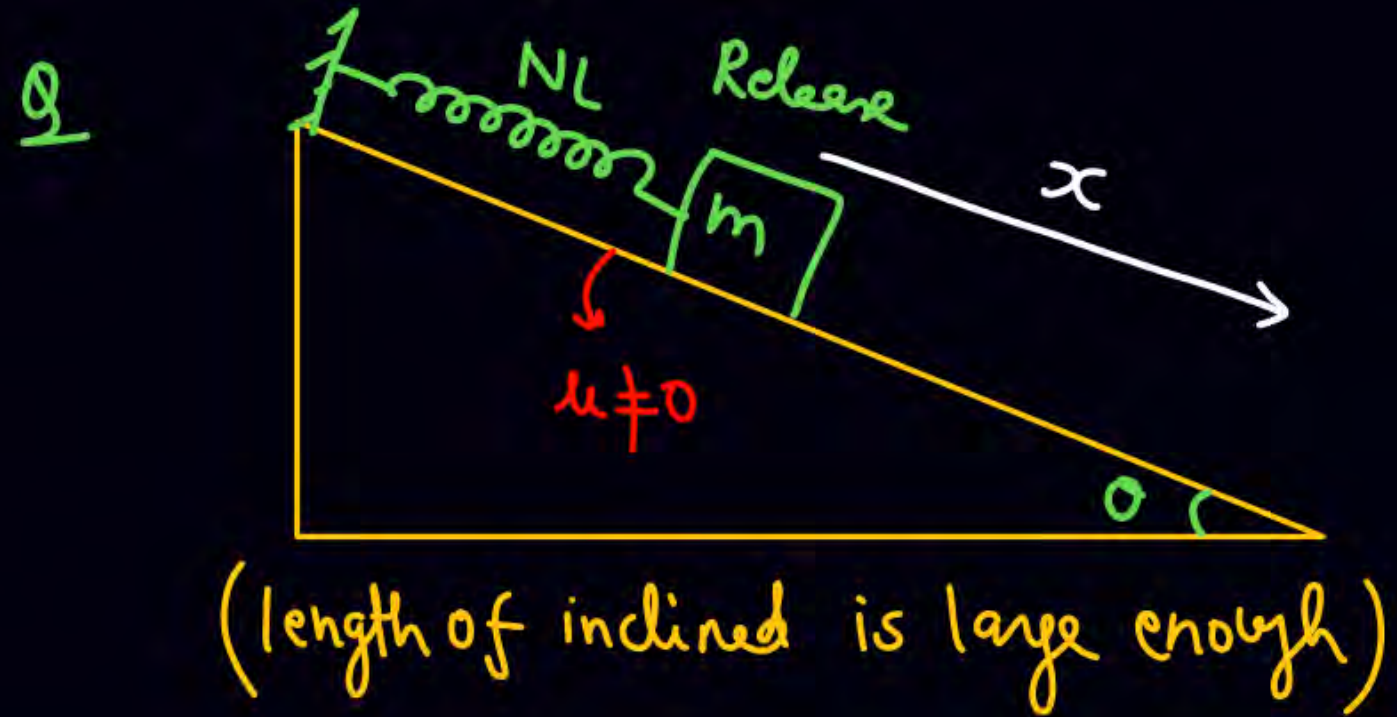


$$W_g + W_N + W_{sp} + W_f = \Delta K + \epsilon$$

$$mgh + 0 - \frac{1}{2}k(x^2 - 0^2) + 0 = 0 - 0$$

$$x = \frac{2mg \sin \theta}{k}$$

Find max elongation  
of spring.

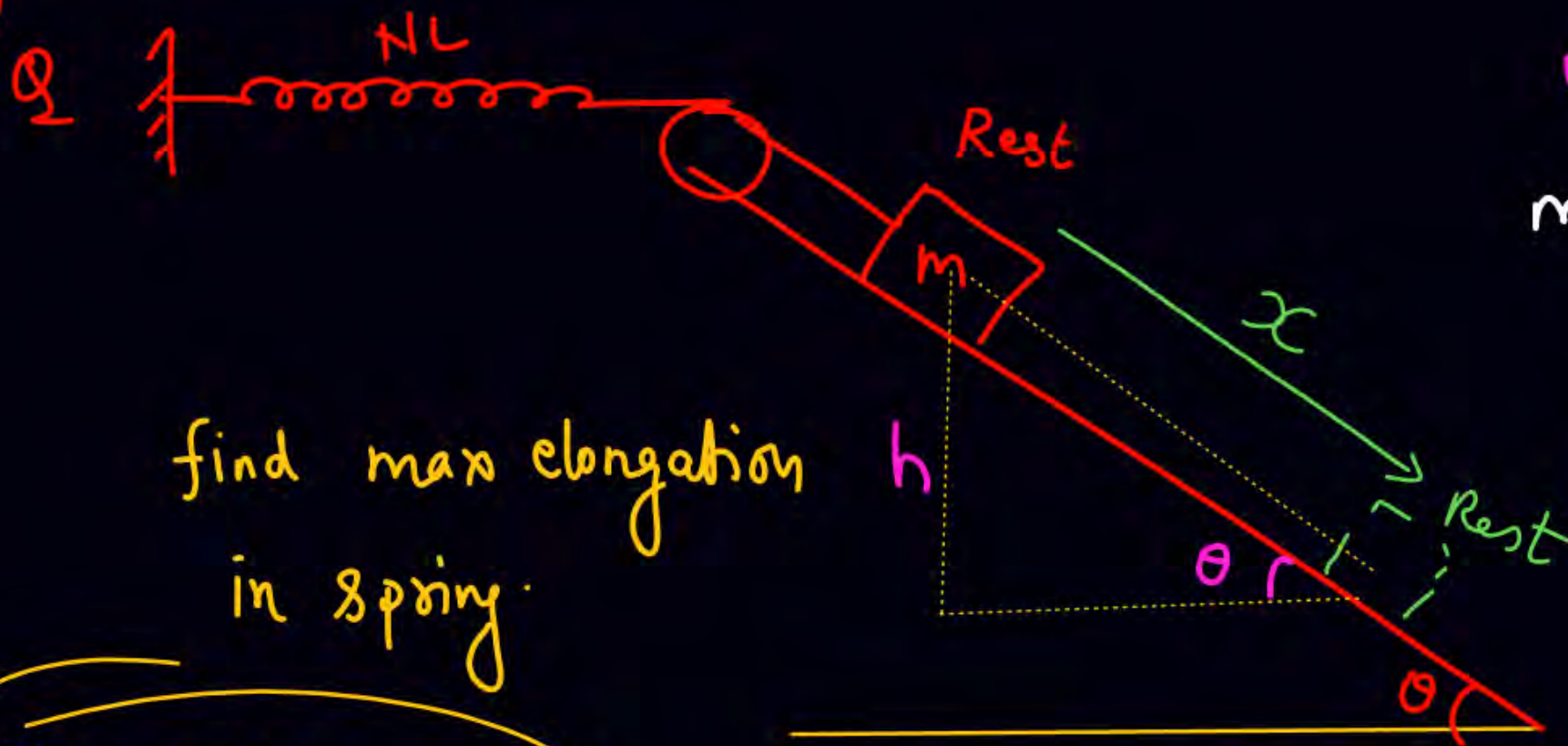


$$W_g + W_N + W_f + W_{sp} = \Delta K \epsilon$$
$$mg(x \sin \theta) + 0 - \mu mg \cos \theta \cdot x - \frac{1}{2} k (x^2 - 0^2)$$
$$= 0 - 0$$





Q



find max elongation  
in spring.

JEE Adv 2062  
Subj

①  $\mu = 0$

$$W_g + W_N + W_{sp} + W_f = \Delta K.E.$$

$$mgh + 0 - \frac{1}{2}k(x^2 - 0^2) + 0 = 0 - 0$$

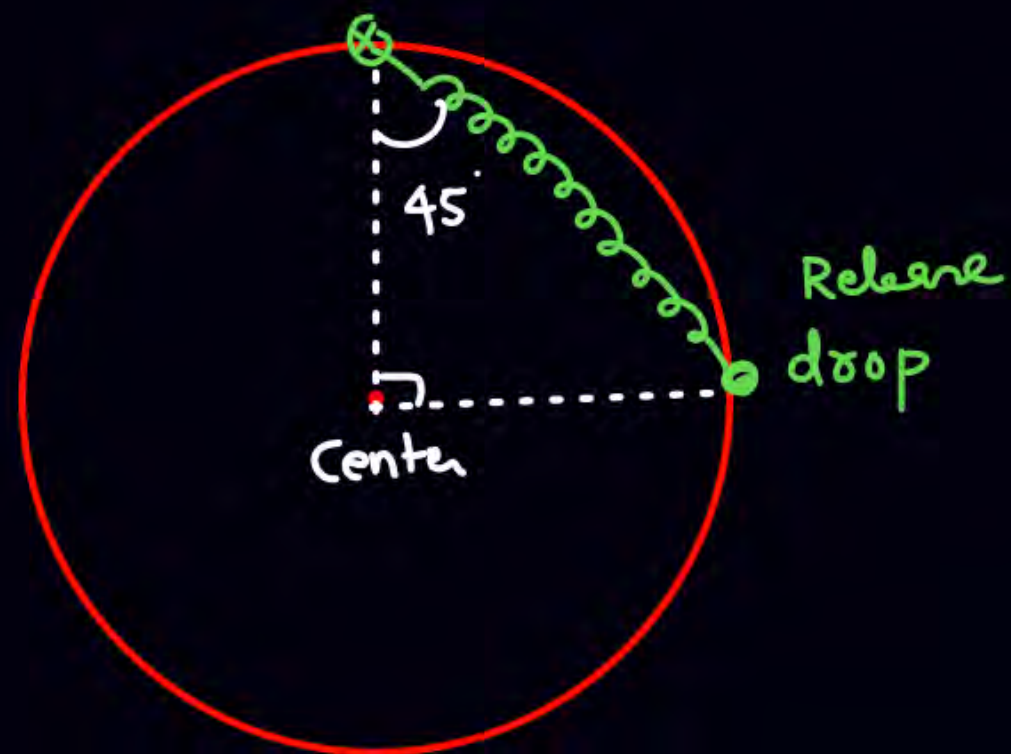
②  $\mu \neq 0$

$$W_g + W_N + W_{sp} + W_f = \Delta K.E.$$

$$mgh + 0 - \frac{1}{2}k(x^2 - 0^2) - \mu mg \cos \theta \cdot x = 0 - 0$$

$$h = x \sin \theta$$

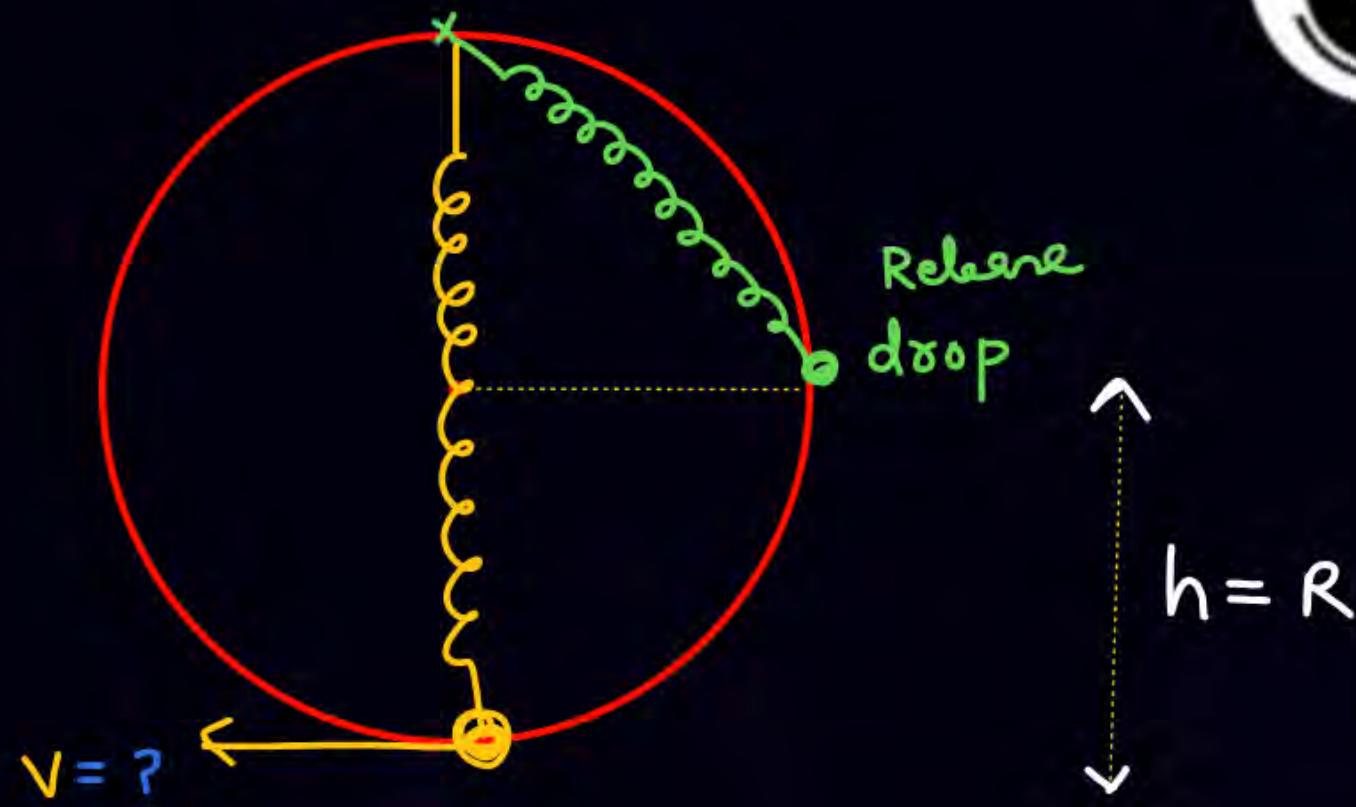
Q



(N.L. of spring =  $R\sqrt{2}$ )

$$x_i = 0$$

$$x_f = 2R - R\sqrt{2}$$



$$W_g + W_N + W_{sp} = \Delta K.E.$$

$$+mgR + 0 - \frac{1}{2}K(x_f^2 - x_i^2) = \frac{1}{2}mv^2 - 0^2$$



H/W

$\Phi$

$4l$

$V=?$

$3l$  drop  $m$

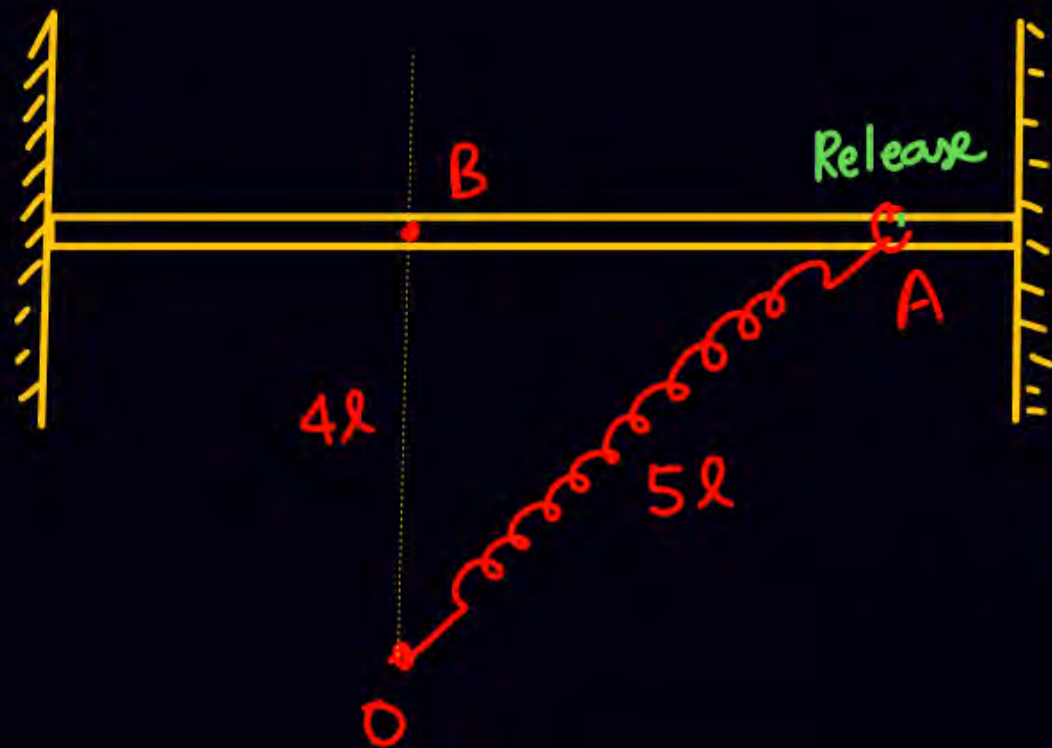
(N.L. of spring =  $2l$ )





H/W

Q

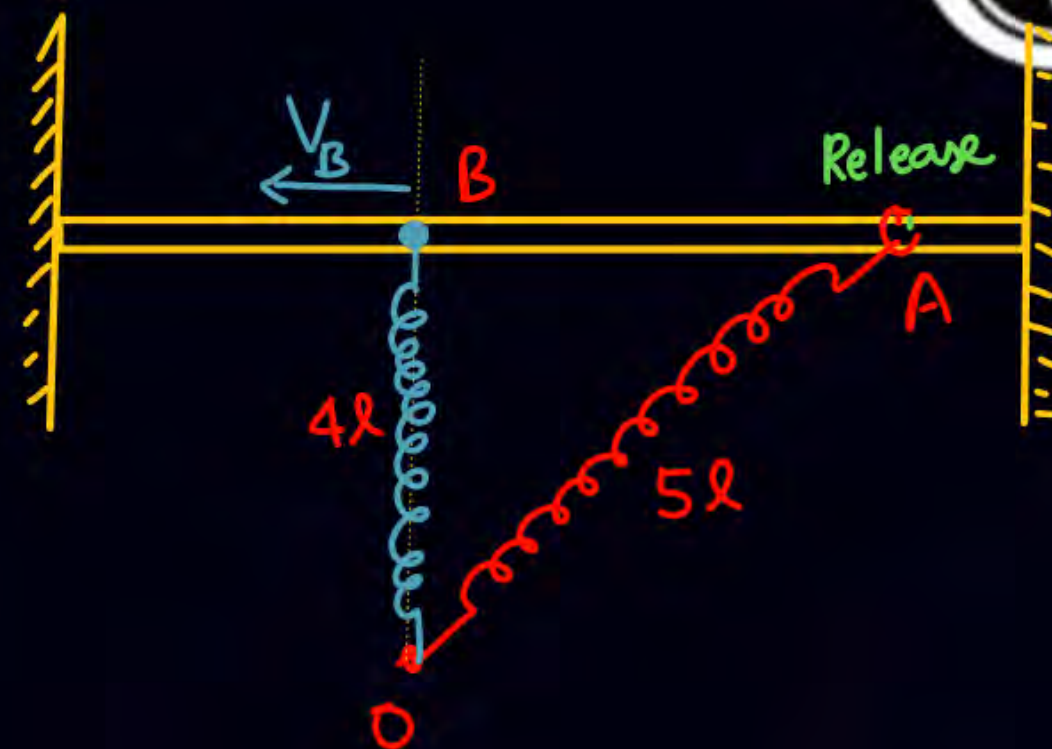


Natural length of spring  $= l$

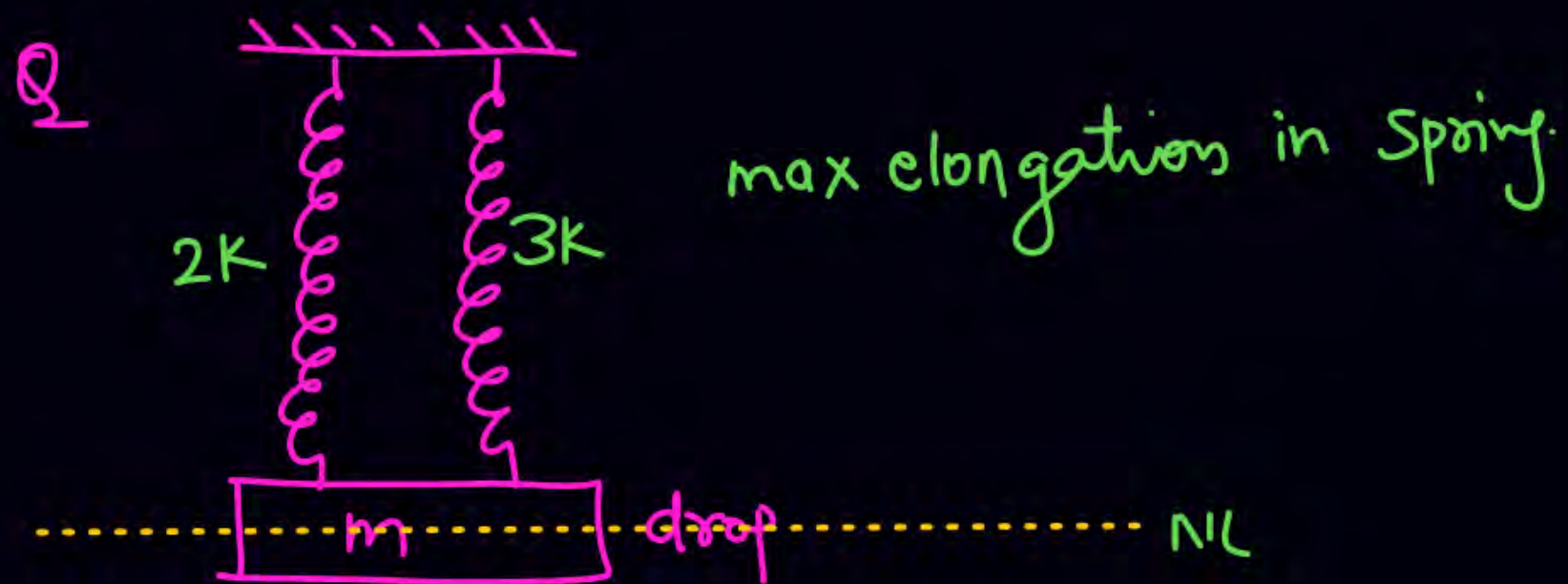
$$OA = 5l$$

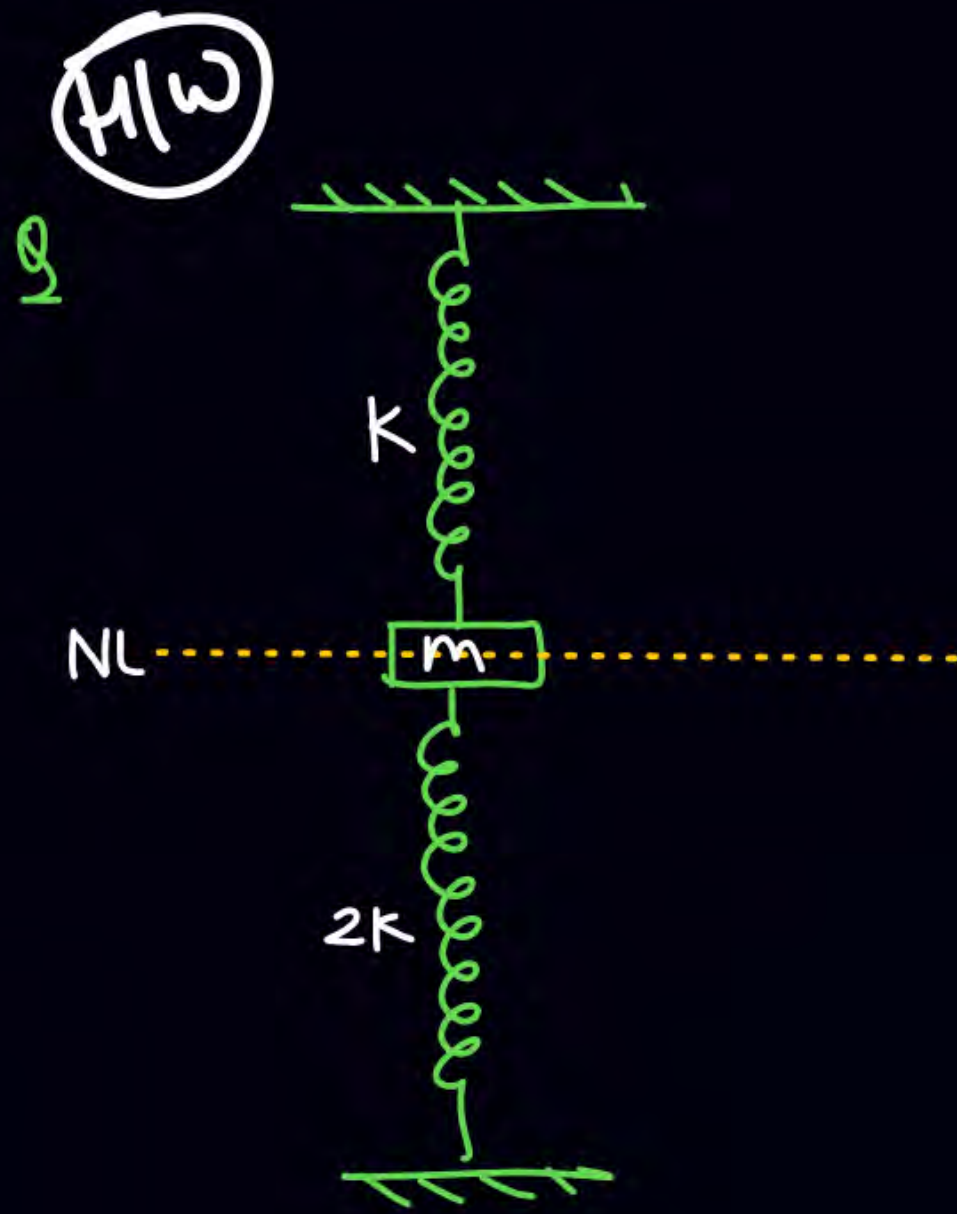
$$OB = 4l$$

find  $v_{\text{ring}}$  at 'B'



H/w







4. A force  $F = (10 + 0.50x)$  acts on a particle in the  $x$  direction, where  $F$  is in newton and  $x$  in meter. Find the work done by this force during a displacement from  $x = 0$  to  $x = 2.0$  m.

**Solution :** As the force is variable, we shall find the work done in a small displacement  $x$  to  $x + dx$  and then integrate it to find the total work. The work done in this small displacement is

$$dW = \vec{F} \cdot d\vec{x} = (10 + 0.5x) dx.$$

$$\begin{aligned} \text{Thus, } W &= \int_0^{2.0} (10 + 0.50x) dx \\ &= \left[ 10x + 0.50 \frac{x^2}{2} \right]_0^{2.0} = 21 \text{ J.} \end{aligned}$$

8. A force  $F = a + bx$  acts on a particle in the  $x$ -direction, where  $a$  and  $b$  are constants. Find the work done by this force during a displacement from  $x = 0$  to  $x = d$ .
9. A block of mass 250 g slides down an incline of inclination  $37^\circ$  with a uniform speed. Find the work done against the friction as the block slides through 1.0 m.



11. A particle is placed at the point A of a frictionless track ABC as shown in figure (8-W7). It is pushed slightly towards right. Find its speed when it reaches the point B. Take  $g = 10 \text{ m/s}^2$ .

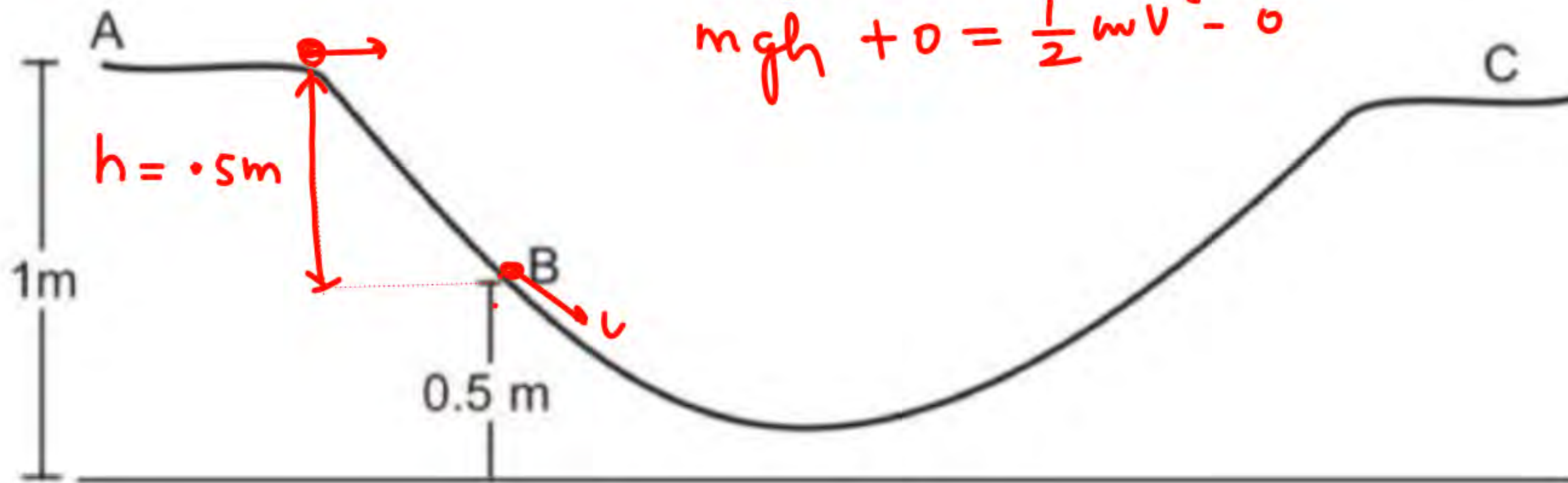


Figure 8-W7

**5.** *A body dropped from a height  $H$  reaches the ground with a speed of  $1.2\sqrt{gH}$ . Calculate the work done by air-friction.*



36. *hcv* Figure (8-E4) shows a particle sliding on a frictionless track which terminates in a straight horizontal section. If the particle starts slipping from the point A, how far away from the track will the particle hit the ground?

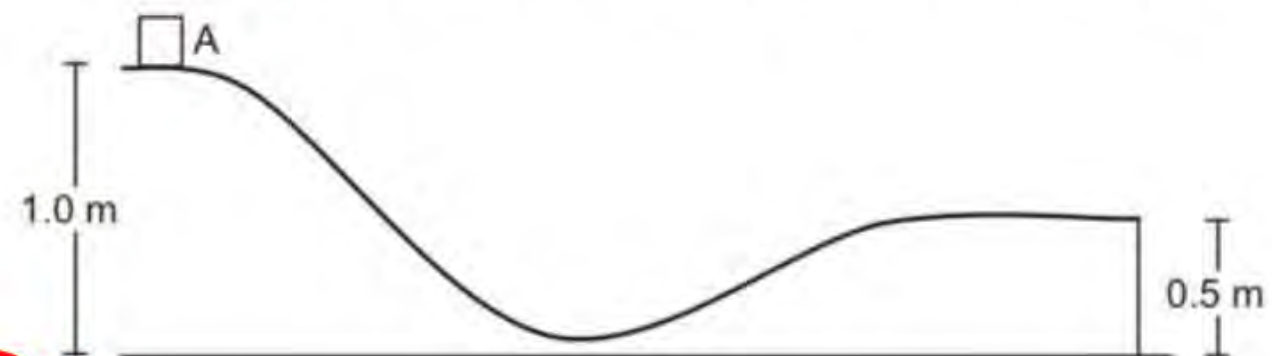


Figure 8-E4

37. *hcv* A block weighing 10 N travels down a smooth curved track AB joined to a rough horizontal surface (figure 8-E5). The rough surface has a friction coefficient of 0.20 with the block. If the block starts slipping on the track from a point 1.0 m above the horizontal surface, how far will it move on the rough surface?

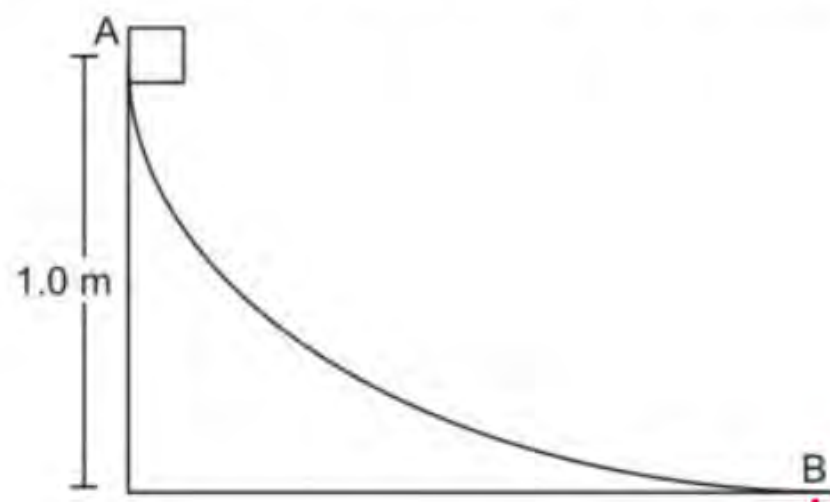


Figure 8-E5

- 15.** A particle of mass  $m$  moves on a straight line with its velocity varying with the distance travelled according to the equation  $v = a\sqrt{x}$ , where  $a$  is a constant. Find the total work done by all the forces during a displacement from  $x = 0$  to  $x = d$ .
- 16.** A block of mass  $2.0 \text{ kg}$  kept at rest on an inclined plane of inclination  $37^\circ$  is pulled up the plane by applying a constant force of  $20 \text{ N}$  parallel to the incline. The force acts for one second. (a) Show that the work done by the applied force does not exceed  $40 \text{ J}$ . (b) Find the work done by the force of gravity in that one second if the work done by the applied force is  $40 \text{ J}$ . (c) Find the kinetic energy of the block at the instant the force ceases to act. Take  $g = 10 \text{ m/s}^2$ .



48. A small block of mass  $100\text{ g}$  is pressed against a horizontal spring fixed at one end to compress the spring through  $5.0\text{ cm}$  (figure 8-E11). The spring constant is  $100\text{ N/m}$ . When released, the block moves horizontally till it leaves the spring. Where will it hit the ground  $2\text{ m}$  below the spring?

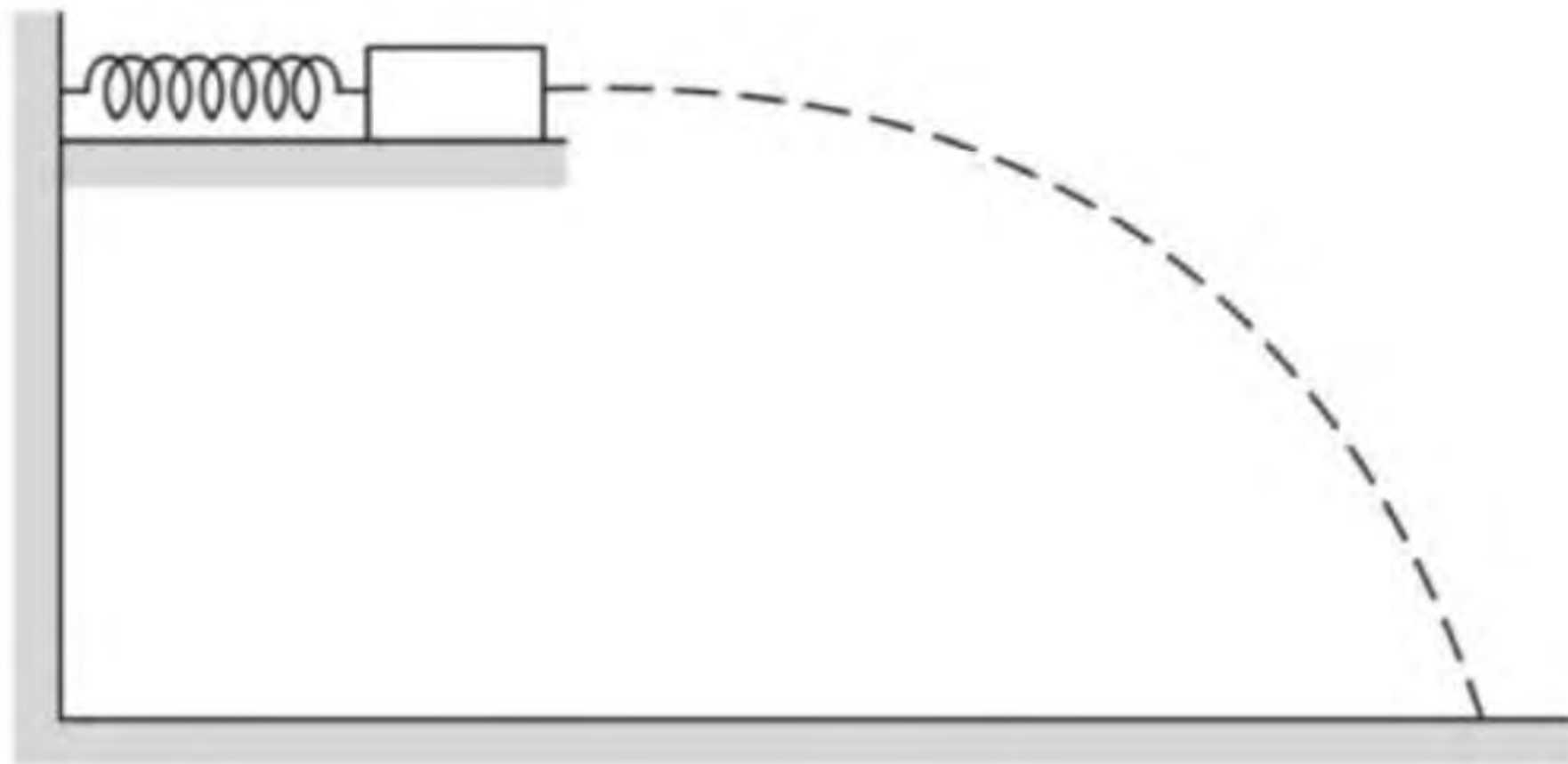


Figure 8-E11



$x$  and is released. Find the speed of the block as it passes through the mean position shown.

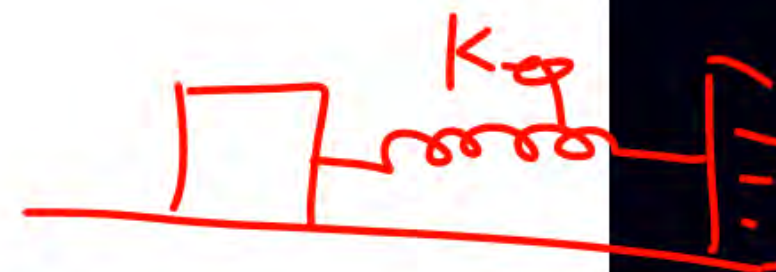
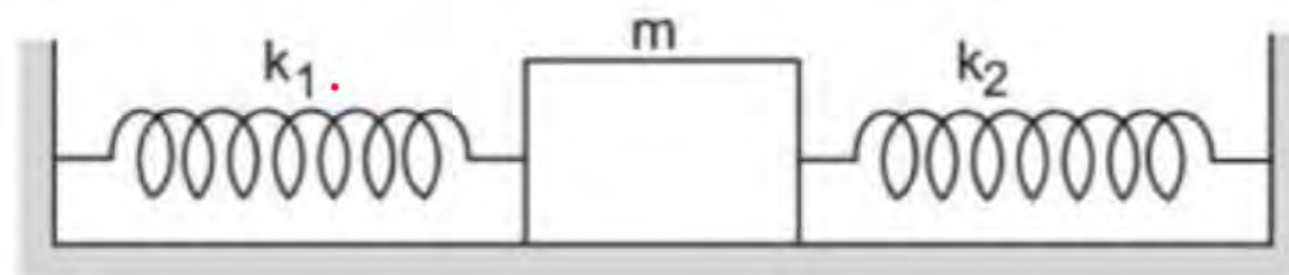


Figure 8-E9

HCV

47. A block of mass  $m$  sliding on a smooth horizontal surface with a velocity  $v$  meets a long horizontal spring fixed at one end and having spring constant  $k$  as shown in figure (8-E10). Find the maximum compression of the spring. Will the velocity of the block be the same as  $v$  when it comes back to the original position shown?



Figure 8-E10

HW

45. Consider the situation shown in figure (8-E8). Initially the spring is unstretched when the system is released from rest. Assuming no friction in the pulley, find the maximum elongation of the spring.

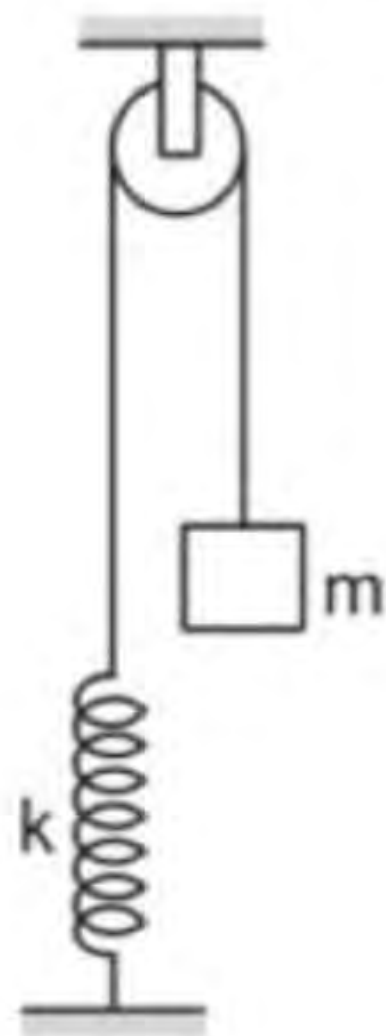


Figure 8-E8

## QUESTION

An ideal spring with spring-constant  $k$  is hung from the ceiling and a block of mass  $M$  is attached to its lower end. The mass is released with the spring initially unstretched. Then the maximum extension in the spring is: **[JEE Advanced - 2002]**

1  $\frac{4Mg}{k}$

2  $\frac{2Mg}{k}$

3  $\frac{Mg}{k}$

4  $\frac{Mg}{2k}$

Ans: (2)



8. An ideal spring with spring-constant  $k$  is hung from the ceiling and a block of mass  $M$  is attached to its lower end. The mass is released with the spring initially unstretched. Then the maximum extension in the spring is [2002]

(1)  $\frac{4Mg}{k}$

(2)  $\frac{2Mg}{k}$

(3)  $\frac{Mg}{k}$

(4)  $\frac{Mg}{2k}$

## QUESTION

 $\epsilon$ 

The work done on a particle of mass  $m$  by a force,  $K \left[ \frac{x}{(x^2+y^2)^{3/2}} \hat{i} + \frac{y}{(x^2+y^2)^{3/2}} \hat{j} \right]$  ( $K$  being a constant of appropriate dimensions), when the particle is taken from the point  $(a, 0)$  to the point  $(0, a)$  along a circular path of radius  $a$  about the origin in the  $x$ - $y$  plane is:

[JEE Advanced - 2013]

- 1  $\frac{2K\pi}{a}$
- 2  $\frac{K\pi}{a}$
- 3  $\frac{K\pi}{2a}$
- 4 0

Ans: (4)

## QUESTION

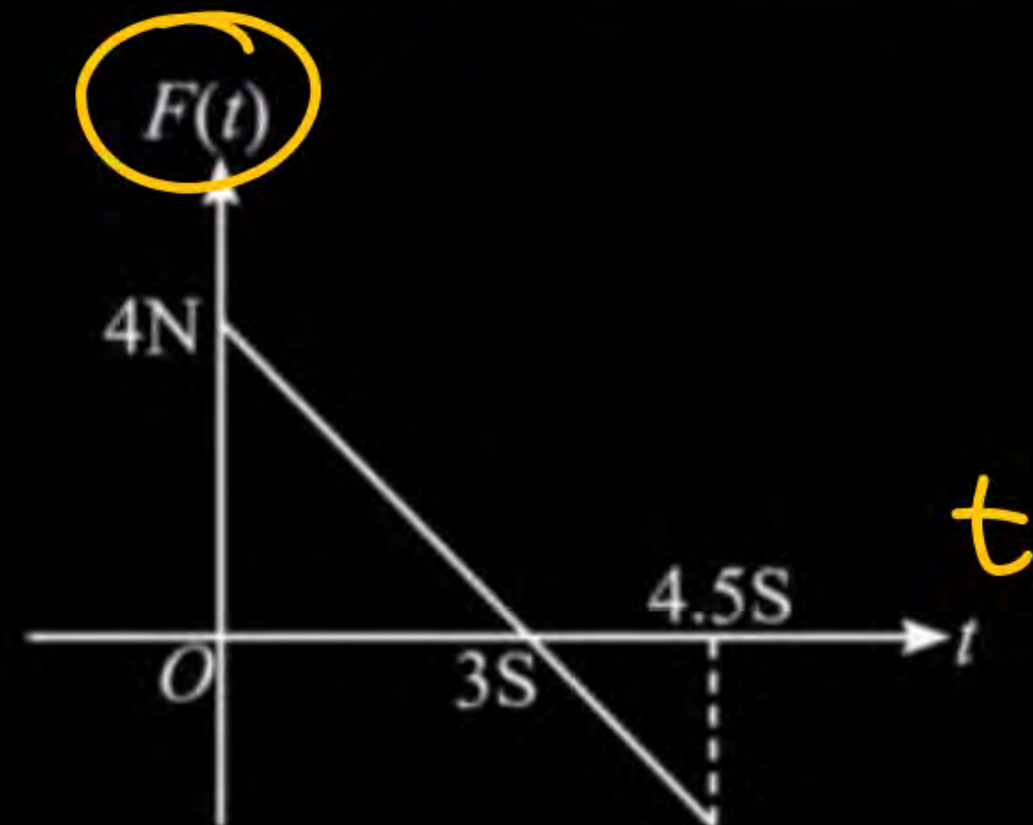
Σ



A block of mass 2 kg is free to move along the  $x$ -axis. It is at rest and from  $t = 0$  onwards it is subjected to a time-dependent force  $F(t)$  in the  $x$  direction. The force  $F(t)$  varies with  $t$  as shown in the figure. The kinetic energy of the block after 4.5 seconds is:

[JEE Advanced - 2010]

- 1 4.50 J
- 2 7.50 J
- 3 5.06 J
- 4 14.06 J



Ans: (3)



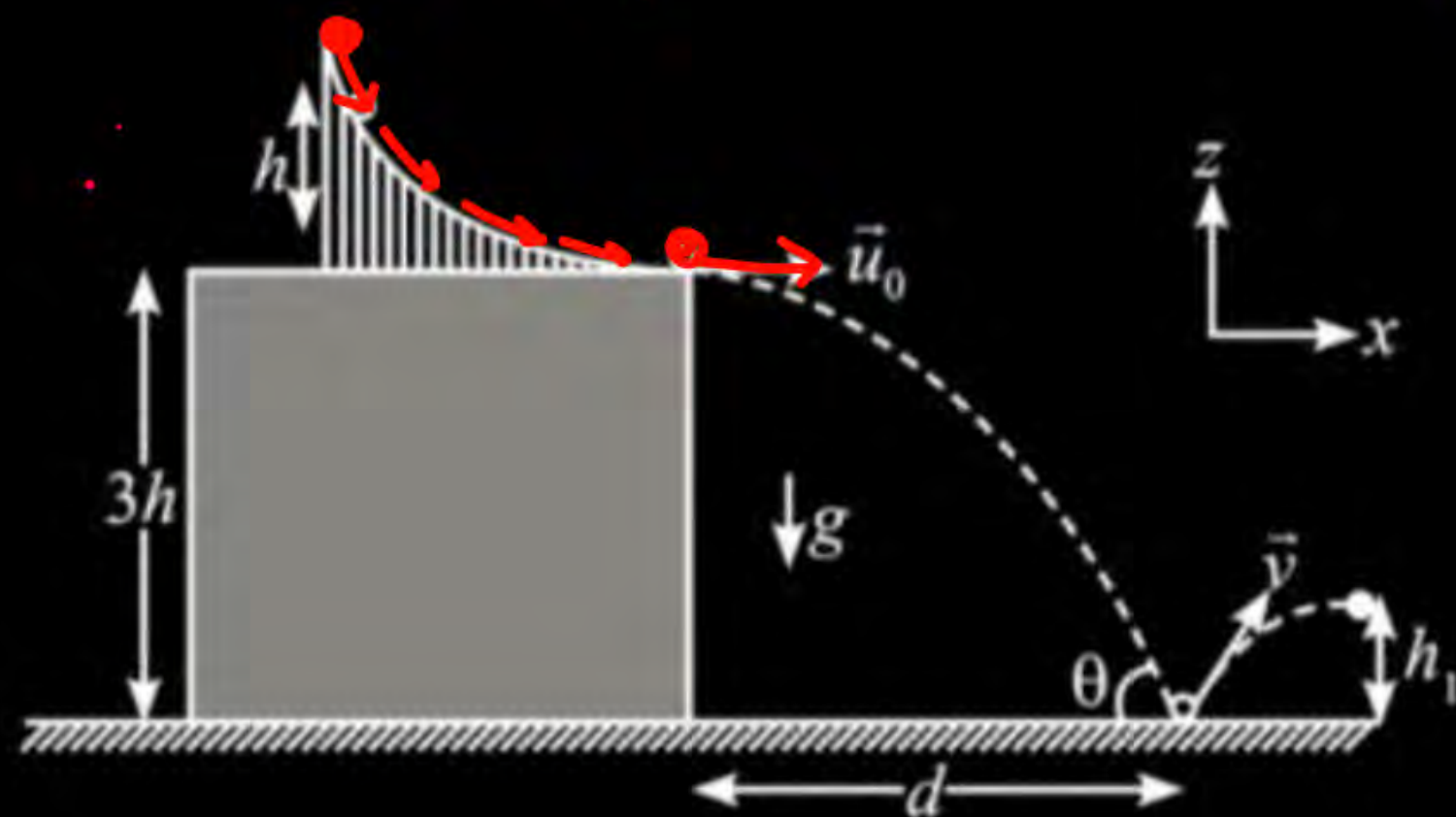
## QUESTION

A slide with a frictionless curved surface, which becomes horizontal at its lower end, is fixed on the terrace of a building of height  $3h$  from the ground, as shown in the figure. A spherical ball of mass  $m$  is released on the slide from rest at a height  $h$  from the top of the terrace. The ball leaves the slide with a velocity  $\vec{u}_0 = u_0 \hat{x}$  and falls on the ground at a distance  $d$  from the building making an angle  $\theta$  with the horizontal. It bounces off with a velocity  $\vec{v}$  and reaches a maximum height  $h_1$ . The acceleration due to gravity is  $g$  and the coefficient of restitution of the ground is  $1/\sqrt{3}$ . Which of the following statement(s) is(are) correct?

$$mgh = \frac{1}{2}mu_0^2 \quad u_0 = \sqrt{2gh}$$

**[JEE Advanced - 2023]**

- 1 ☒  $\vec{u}_0 = \sqrt{2gh} \hat{x}$
- 2 ☐  $\vec{v} = \sqrt{2gh}(\hat{x} - \hat{z})$
- 3 ☐  $\theta = 60^\circ$
- 4 ☐  $d/h_1 = 2\sqrt{3}$



Ans: (1, 2, 4)



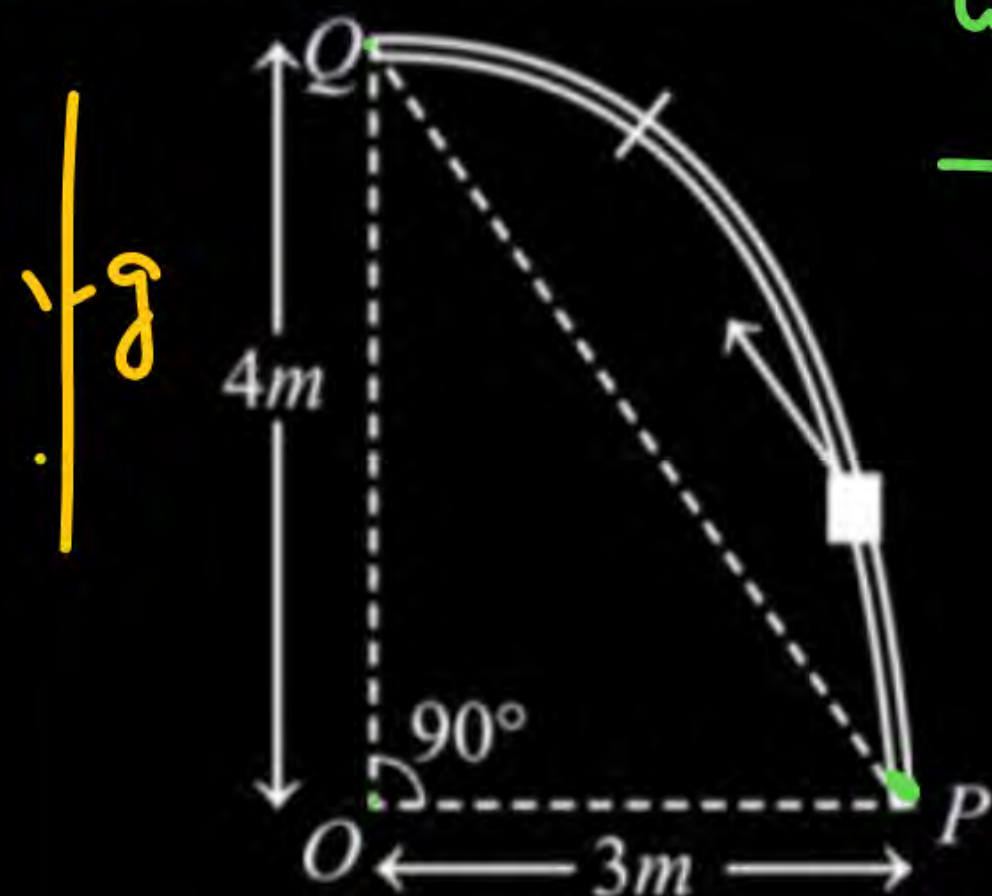
## QUESTION



Consider an elliptically shaped rail PQ in the vertical plane with  $OP = 3\text{ m}$  and  $OQ = 4\text{ m}$ . A block of mass  $1\text{ kg}$  is pulled along the rail from P to Q with a force of  $18\text{ N}$ , which is always parallel to line PQ (see the figure given).

Assuming no frictional losses, the kinetic energy of the block when it reaches Q is  $(n \times 10)$  joules. The value of  $n$  is (take acceleration due to gravity  $= 10\text{ ms}^{-2}$ ).

[JEE Advanced - 2014]



$$\begin{aligned} W_g + W_f + W_N + W_F &= K_f - 0 \\ -1 \times 10 \times 4 + 0 + 0 + 18 \times 5 &= K_f \\ K_f = 50 &= n \times 10 \\ n &= 5 \end{aligned}$$

Ans: (5)



## QUESTION

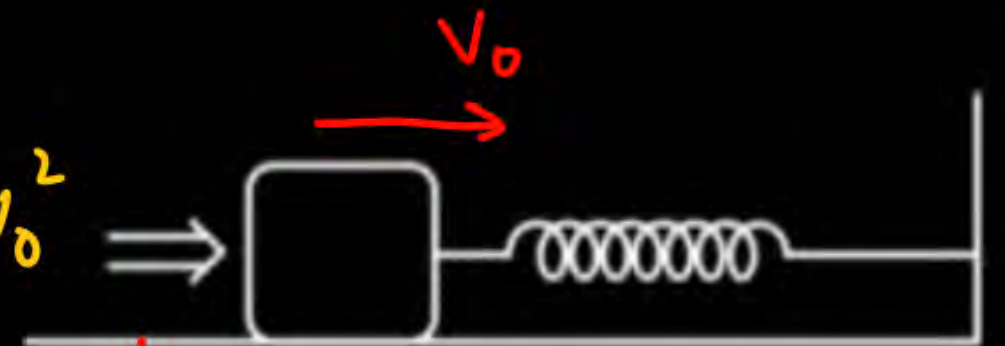


A block of mass 0.18 kg is attached to a spring of force constant 2 N/m. The coefficient of friction between the block and the floor is 0.1. Initially the block is at rest and the spring is unstretched. An impulse is given to the block as shown in the figure. The block slides a distance of 0.06 m and comes to rest for the first time. The initial velocity of the block in m/s is  $V = N/10$ . Then N is:

[JEE Advanced - 2011]

$$W_g + W_N + W_f + W_{sp} = \Delta K.E.$$

$$0 + 0 + \mu mgx + \frac{1}{2}k(x^2 - 0^2) = 0 + \frac{1}{2}mV_0^2$$



$$\sqrt{\frac{16}{100}} = \frac{4}{10} = \frac{2}{5}$$

~~$\frac{1}{10} \times \frac{18}{100} \times 10 \times 6 + \frac{1}{2} \times 2 \times \frac{6^2}{100} = \frac{1}{2} \times \frac{18}{100} \times V_0^2$~~



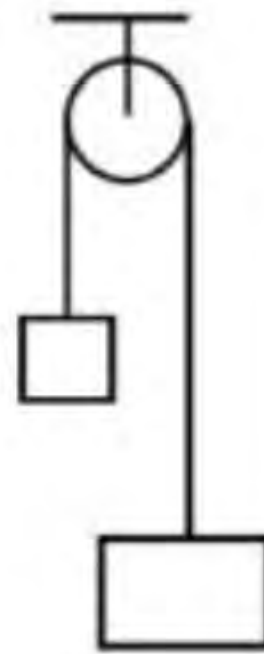
Ans: (4)



1. A light inextensible string that goes over a smooth fixed pulley as shown in the figure connects two blocks of masses  $0.36 \text{ kg}$  and  $0.72 \text{ kg}$ . Taking  $g = 10 \text{ m/s}^2$ , find the work done (in **joules**) by the string on the block of mass  $0.36 \text{ kg}$  during the first second after the system is released from rest.

चित्र में दर्शाये अनुसार एक चिकनी स्थिर घिरनी पर से गुजरती हुई एक हल्की अविटान्य रस्सी से  $0.36 \text{ kg}$  तथा  $0.72 \text{ kg}$  द्रव्यमान के दो ब्लॉक जुड़े हुए हैं। निकाय को विरामावस्था से छोड़ने के बाद प्रथम सैकण्ड के दौरान  $0.36 \text{ kg}$  द्रव्यमान के ब्लॉक पर रस्सी द्वारा किया गया कार्य (जूल में) ज्ञात कीजिये।

[IIT-JEE-2009]



Ans. 8



## Homework

- Aaj In qus ko notes me likho aur try to solve again 2-3 times in rough copy. . . . believe me . . . . Bahut fayda aur bahut maza ayega. . . .

**THANK**  
**YOU**