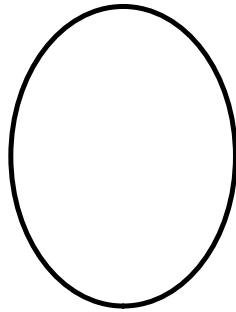


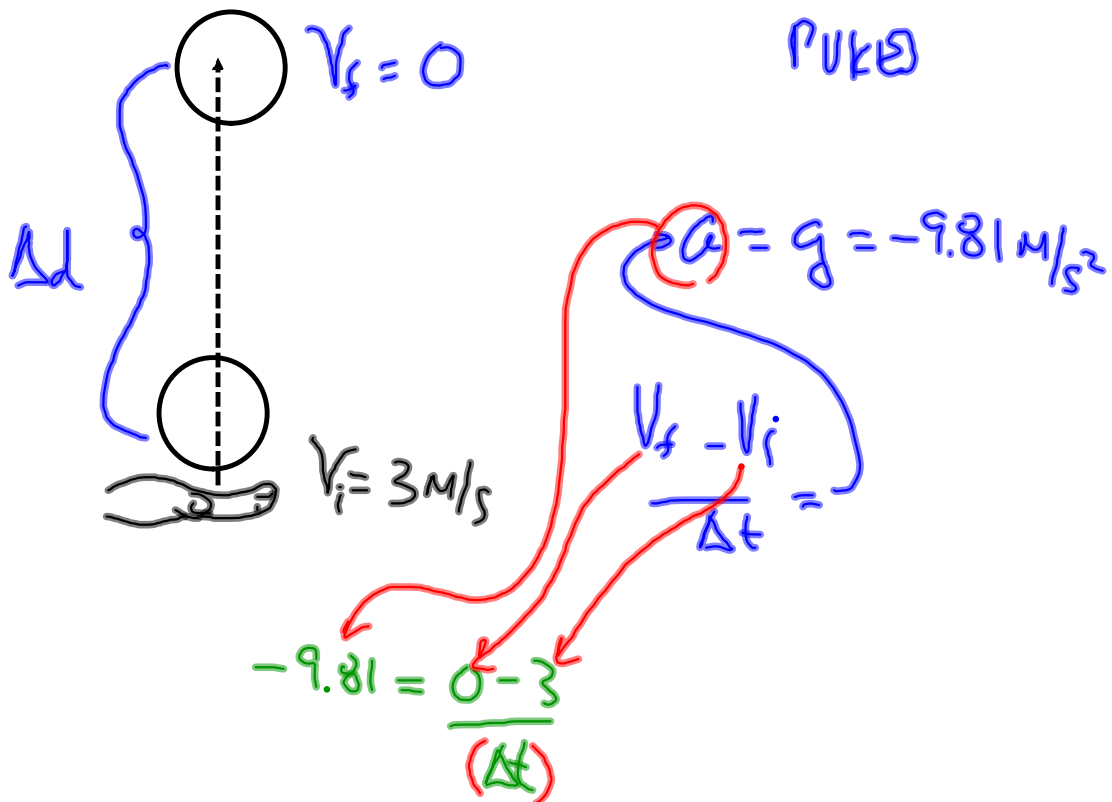
$$F = G \frac{m_s m_e}{r^2}$$



Gravity ↓

$$F = G \frac{m_s m_e}{r^2}$$

$$F = G \frac{m_s m_e}{\left(\frac{r}{2}\right)^2} = G \frac{m_s m_e}{\frac{r^2}{4}}$$



$$\Delta t (-9.81) = \frac{-3}{\cancel{\Delta t}}$$

$$\cancel{-9.81} \Delta t = +3$$

$$\frac{-9.81}{\cancel{-9.81}} = \frac{+3}{+9.81} = \Delta t = .30 \text{ s}$$

$$\Delta d = \underline{v_{avg}} \Delta t$$

$$v_{avg} = \frac{v_f + v_i}{2} = \frac{0 + 3}{2} = 1.5 \text{ m/s}$$

when a is const.

$$\Delta d = (1.5)(.3) = .45 \text{ m}$$

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POD 14

The amount of force that causes an acceleration of 1 centimeter/second² for a body with a mass of 1 gram.

5. + -1.88 points 📄 Notes

On the surface of the Earth, what is the force of gravity acting on one kilogram?

- 9.8 newtons
- 9.8 pounds
- varies according to you mass
- 3.8 newtons

$F = ma$
 $W = mg$
 $9.81\text{ N} = (1)(9.81)$

6. + -1.88 points 📄 Notes

Give an example of Newton's third law acting in everyday life.

- If I jump forward on a newly waxed floor with my socks on, I will slide along the floor without stopping until friction or another object stops me.

Internet 100%