Examples of Index Cards
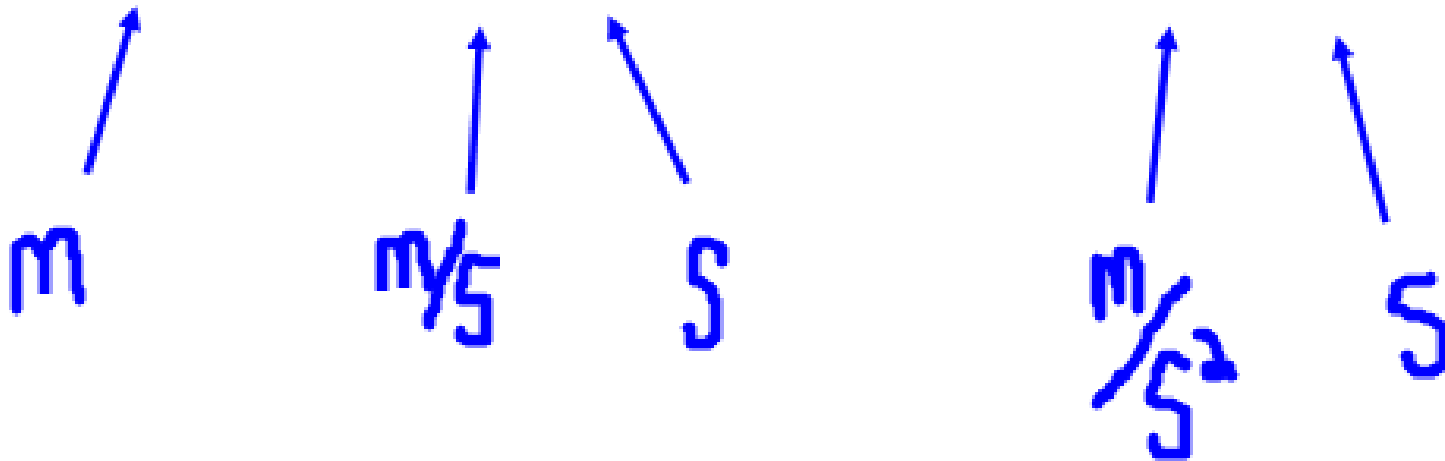
1.

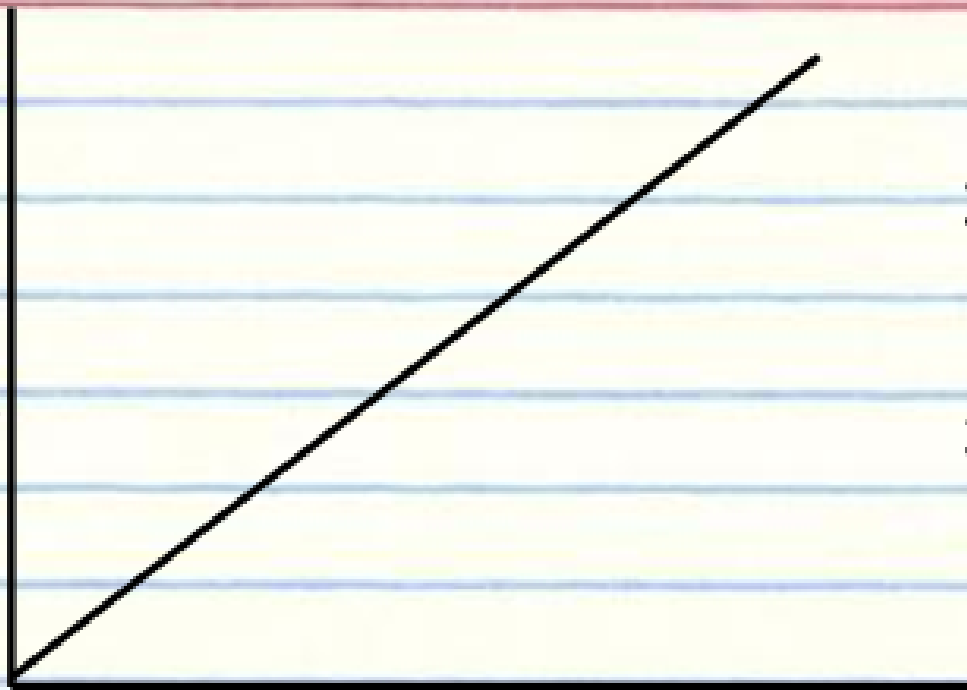$$x(v_i, t, a)$$

$$x = v_i t + 1/2\ a\ t^2$$

m

m/s   s

m/s² s

front of index card

2.

v
(m/s)

t
(s)

1.What type of motion?

2. What does slope represent?
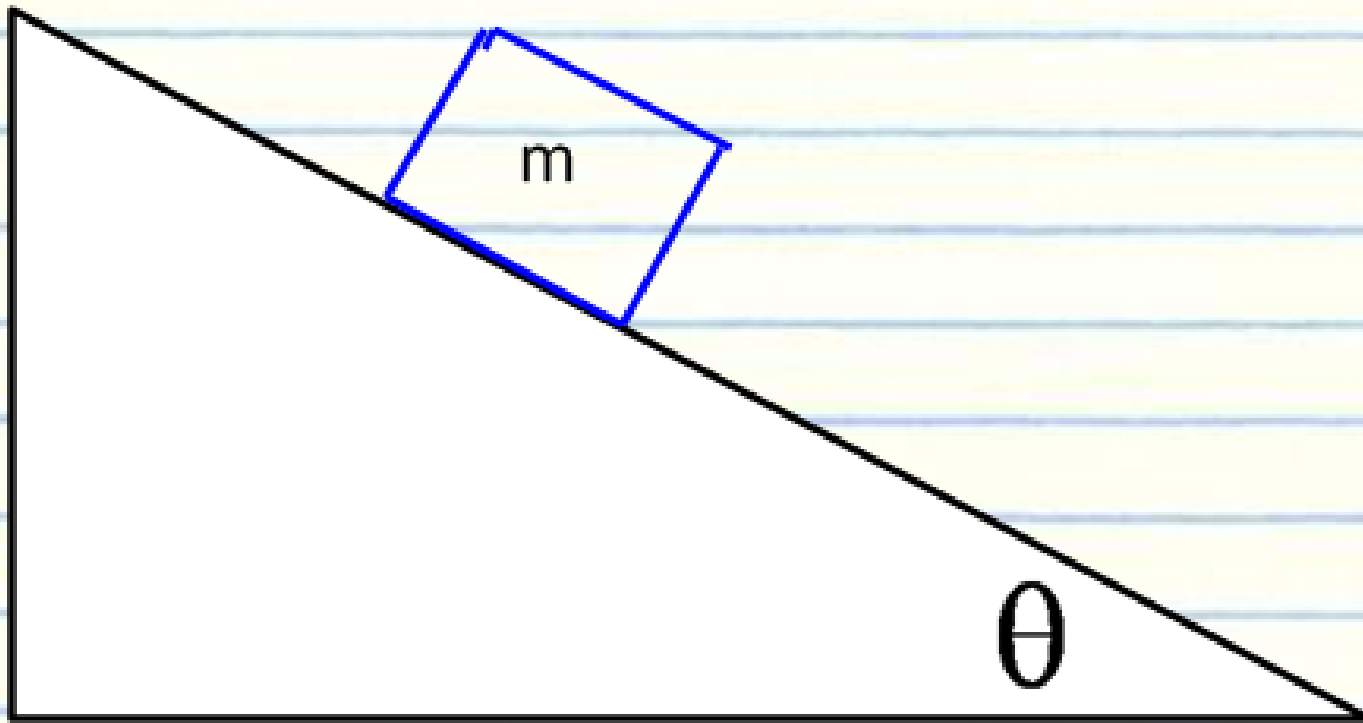
3. What does area under the curve represent?

1. uniformly accelerated motion

2. slope of a velocity versus time graph
   represents the acceleration of the motion

3. area under the curve of a velocity versus time graph
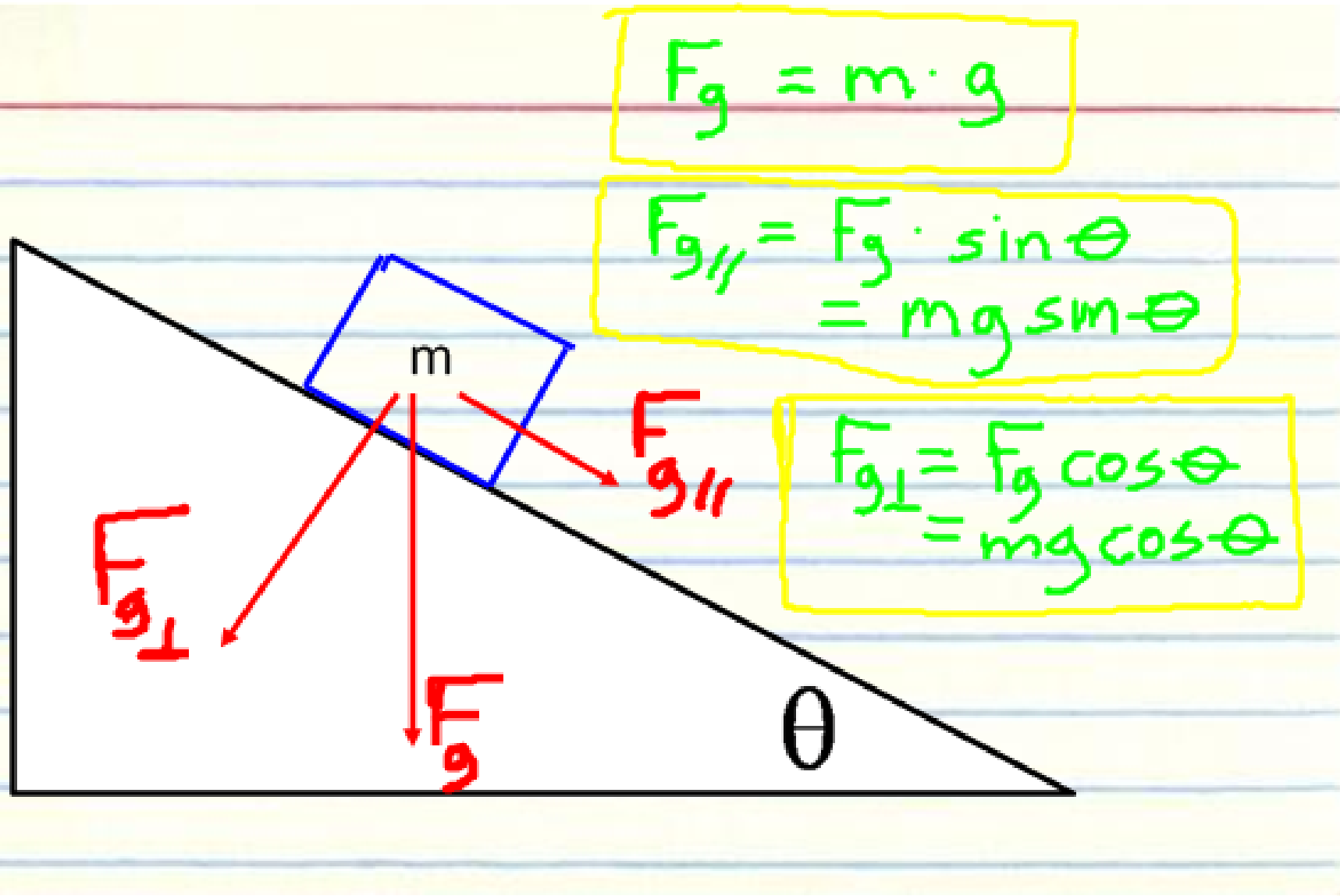   represents the displacement

3.

1. Draw Fg, Fg$_{//}$, and Fg$_{\perp}$
2. State how to calculate each

m

θ

$$F_g = m \cdot g$$

$$F_{g//} = F_g \cdot \sin\theta$$
$$= mg \sin\theta$$

$$F_{g\perp} = F_g \cos\theta$$
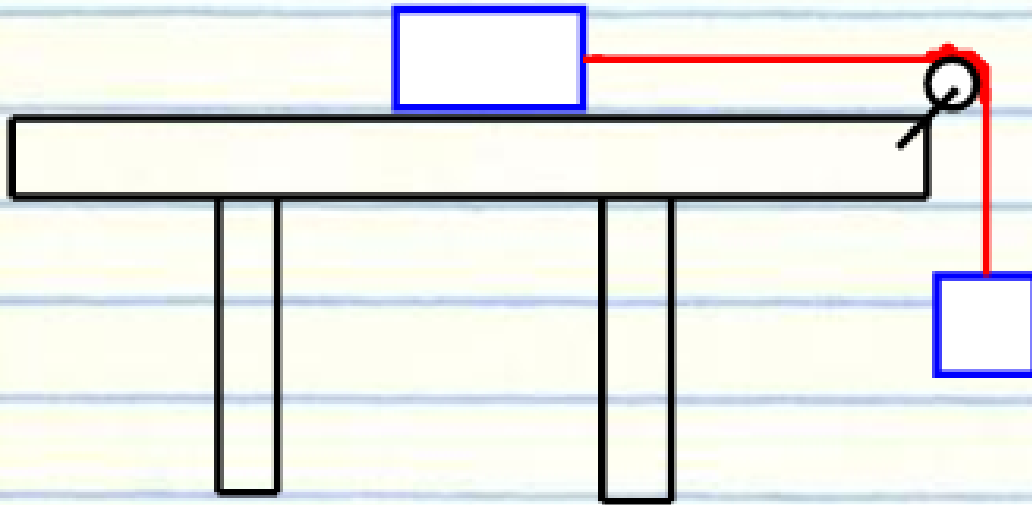$$= mg \cos\theta$$

m

$$F_{g//}$$

$$F_{g\perp}$$

$$F_g$$

$$\theta$$

front of index card

4.

$T = ?$

$a = ?$

1. draw free body diagram for each object

2. apply $F_{net} = m{\cdot}a$ to each object

3. solve simultaneous equations

The front of the card should have something to jostle your memory about something without giving all of the information.

The front of the card should have some sort of question.

The back of the card should have everything that you want to remember.

The back of the card should have the answer to the question.