

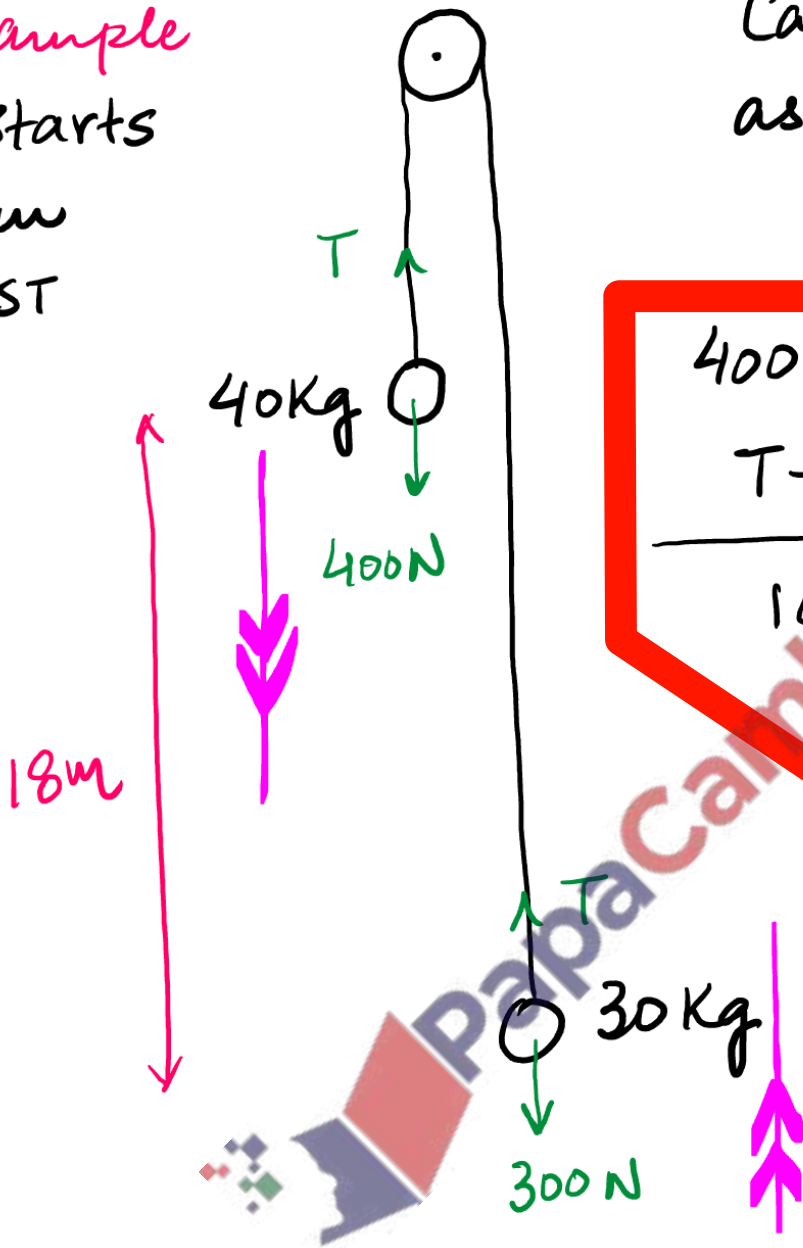
Theory dynamics slide 2

10 November 2020

19:39

Example
starts
from
REST

Cal. the speed
as they cross
each other?



$$400 - T = 40a$$

$$T - 300 = 30a$$

$$100 = 70a$$

$$a = \frac{10}{7} \text{ m/s}^2$$

Stick with
this in this
situation

$$u = 0$$

$$v = ??$$

$$a = \frac{10}{7}$$

$$s = \frac{18}{2} = 9$$

$$v^2 = 0^2 + 2\left(\frac{10}{7}\right)(9)$$

$$v = 5.1 \text{ m/s}$$