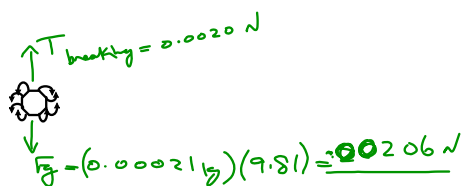


A 0.21 g spider is suspended from a thread of web that has a breaking tension of 0.0020 N. What is the max accel that the spider can climb up the thread?



$$F_n = F_{up} - F_{dn} = 0.0020 \text{ N} - 0.00206 \text{ N} = 0.00006 \text{ N}$$

$$a = \frac{F_n}{m} = \frac{-0.00006 \text{ N}}{0.00021 \text{ kg}} = -0.29 \text{ m/s}^2$$

dn word

Oct 23-9:45 AM