Warm Up

- A person weighing 490 N stands on a scale in an elevator.
  - a) What does the scale read when the elevator is at rest?
  - b) What is the reading on the scale when the elevator rises at constant velocity?

$W = 490\,N$

a) System at rest

b) System moving with constant velocity

System at rest
System moving with constant velocity on a straigth line] =

= Equilibrium

According to Newton's 1st Law of Motion: $\boxed{F_{NET} = 0\,N}$] $\Rightarrow$ $N = W = 490\,N$

$F_{NET} = W - N$

number given by the scale