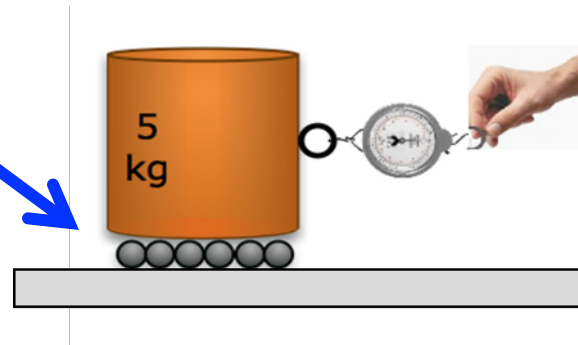




*Very good wheels.
Ignore friction
With the table.*

System Schema

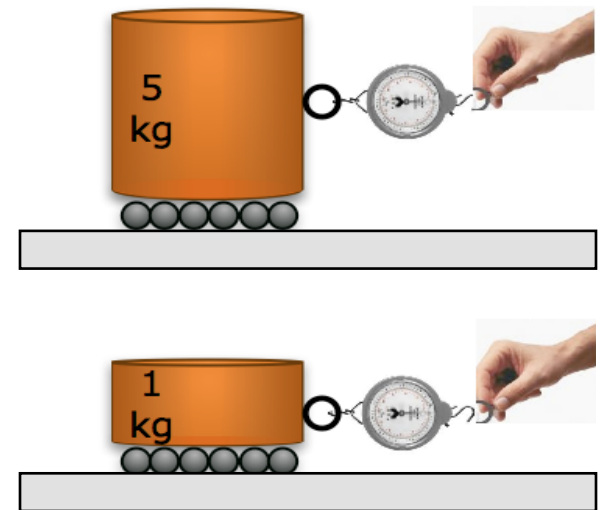


Free-Body Diagram

You are pulling two blocks along a table with the same (constant) acceleration.
Which requires a larger force?



- A. The 1 kg weight block
- B. The 5 kg weight block
- C. They require the same force.
- D. There is not enough information to tell.

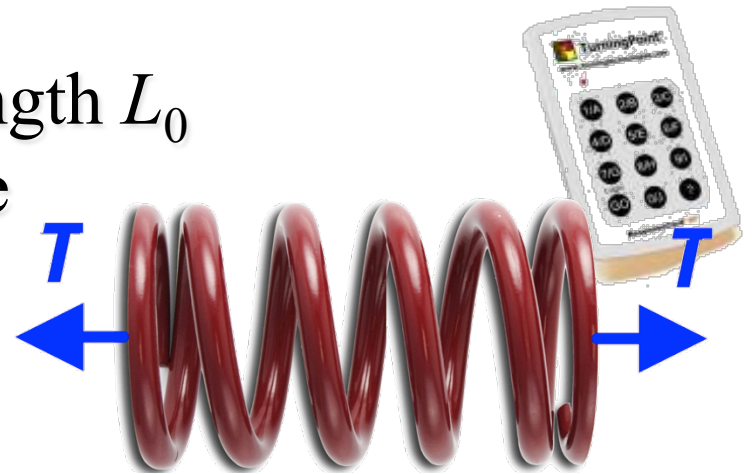


The prof drops two metal spheres, one of 1 kg, the other of 5 kg. They hit the ground at (almost) exactly the same time. The force responsible for speeding up the 5 kg weight is:

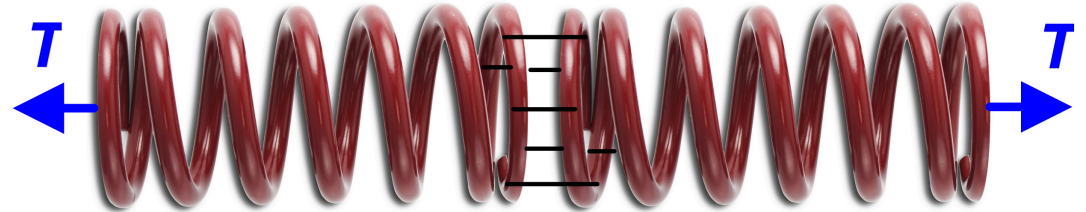


- A. Greater than the force pulling on the 1 kg weight
- B. Less than the force pulling on the 1 kg weight
- C. Almost the same as the force pulling on the 1 kg weight.
- D. There is not enough information to tell.

Consider a single spring with rest length L_0 and spring constant k as shown at the right. If we pull on it from opposite sides with a tension T it stretches by ΔL where $T = k\Delta L$.



Suppose two such identical springs are connected as shown. How much would they stretch if pulled by a tension force T ?



- A. L_0
- B. ΔL
- C. $2\Delta L$
- D. $\Delta L/2$
- E. Something else