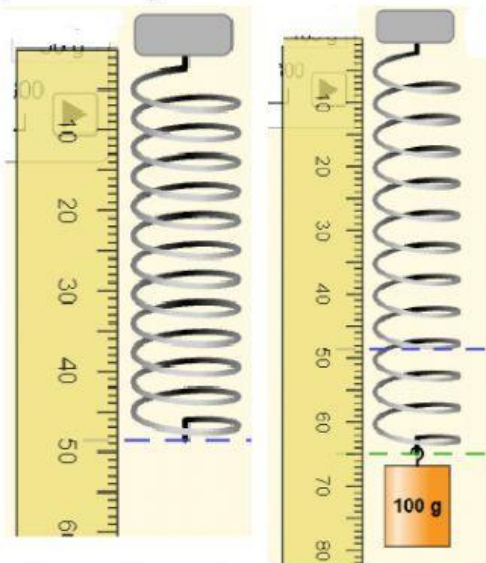


HOOKE'S LAW

NAME: _____

An unloaded spring is hanging suspended from a clamp as shown in the diagram below. When the object of mass 100g is hung on the spring it extends proportionally.



Calculate the weight of the object.

mass in kilogram:

mass = _____ kg

weight in Newton

weight = _____ N

Calculate the extension of the spring.

original length = _____ cm

New length = _____ cm

Working:

Extension: _____ cm

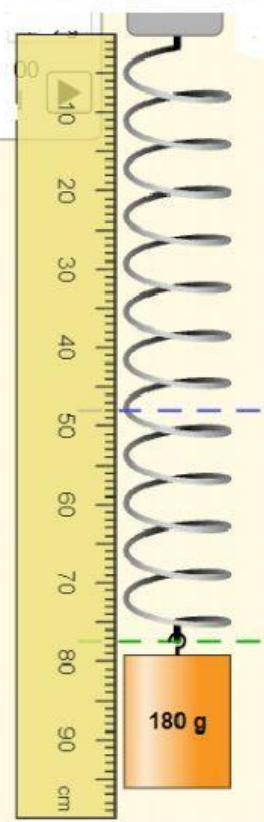
Calculate the Spring Constant.

Force = _____ N

extension = _____ cm

Working:

Spring Constant = _____ unit: _____



Calculate the length of the spring with a 180g hung on it.

mass in kg = _____

weight = _____

extension = $\frac{\text{force}}{\text{spring constant}}$

extension = _____ cm

New length = Original length + extension

= _____ cm + _____ cm

New length = _____ cm