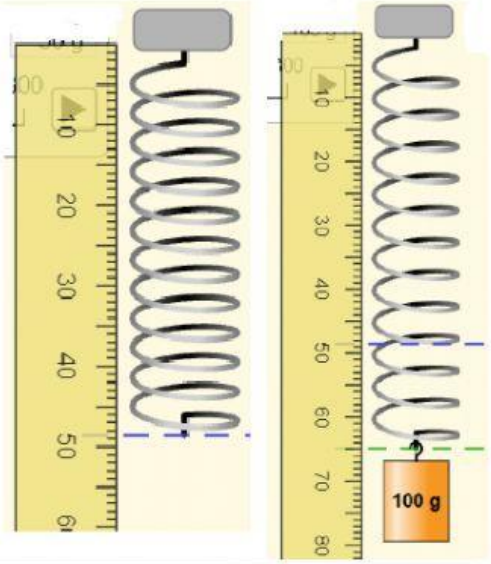
HOOKE'S LAW

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.

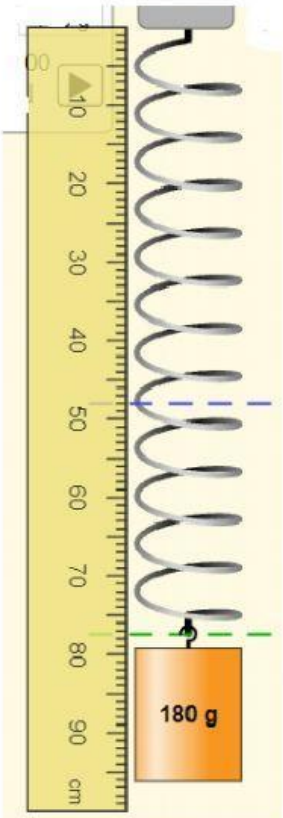
original length = _____cm
New length = _____cm
Working:

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 = _____

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

extension = _____cm

New length = Original length + extension
= _____cm + _____cm
New length = _____cm

LIVEWORKSHEETS