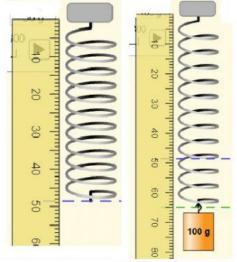
HOOKE'S LAW

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 extension of the spring.

original length = ____cm New length = ___cm Working:

Extension: cm

Calculate the weight of the object.

mass in kilogram:

mass = ____kg

weight in Newton

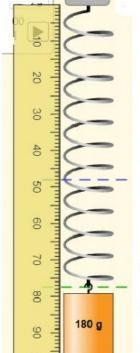
weight = _____N

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 = _____

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

extension = ____cm

New length = Original length + extension

= _____cm + ____cm

New length = ____cm