

## PHYSICS DEFINITIONS GRADE 12 - FILL IN THE MISSING TERM

### NEWTON AND VERTICAL PROJECTILE MOTION

#### NEWTON:

Normal force – the force or component of a force which a \_\_\_\_\_ exerts on an object with which it is in contact, and which is \_\_\_\_\_ to the surface

Frictional force – the force that \_\_\_\_\_ the motion of an object and which acts \_\_\_\_\_ to the surface

Static frictional force – the force that \_\_\_\_\_ the motion of a \_\_\_\_\_ object relative to a \_\_\_\_\_

Kinetic frictional force – the force that \_\_\_\_\_ the motion of a \_\_\_\_\_ object relative to a \_\_\_\_\_

Newtons first law of motion – a body will remain in its state of \_\_\_\_\_ or at \_\_\_\_\_ unless a \_\_\_\_\_ /net force acts on it

Inertia – the \_\_\_\_\_ of an object to any change in its state of motion

Newtons second law of motion – when a \_\_\_\_\_ /net force acts on an object, the object will \_\_\_\_\_ in the direction of the net force at an \_\_\_\_\_ proportional to the force and \_\_\_\_\_ proportional to the \_\_\_\_\_ of the object

Newtons third law of motion – when one body exerts a \_\_\_\_\_ on a second body, the second body exerts a \_\_\_\_\_ of \_\_\_\_\_ magnitude in the \_\_\_\_\_ direction on the first body

Newtons law of universal gravitation – \_\_\_\_\_ in the universe attracts every other \_\_\_\_\_ with a force that is \_\_\_\_\_ proportional to the product of their \_\_\_\_\_ and \_\_\_\_\_ proportional to the \_\_\_\_\_ of the \_\_\_\_\_ between their centres

Weight – the \_\_\_\_\_ force the \_\_\_\_\_ exerts on any object on or near its surface

Mass – the amount of \_\_\_\_\_ an object is made up of

Weightlessness – when there are no \_\_\_\_\_ forces acting on an object

**VERTICAL PROJECTILE MOTION:**

Projectile – an object upon which the only force acting is the force of

Free fall -when the only force acting upon an object is                      force