**Models Available for this test:**

***Constant Velocity Model:***

v =

∆x = v∆t *or* xf = v∆t + xi

***Force Models:***

Constant Velocity ⬄

Constant Velocity ⬄





*Force of Gravity Equation*

****

*Force of Friction Equations*

** **

*Force on a Spring Equation*

**** (k=spring constant)

***Constant Acceleration Models:***

a =

∆x = a(∆t)2 + vi∆t *or* xf = a(∆t)2 + vi∆t + xi

∆v = a∆t *or* vf = a∆t + vi

vf2 = vi2 +2a∆x

*Acceleration Due to Gravity Near the Surface of the Earth:*

****

***Trigonometry Equations***

****

****

****

***Energy Models***

*Energy Stored Gravitationally*

∆Eg = mg∆h (g=9.8)

*Energy Stored Elastically*

∆Eel = k(xf2 - xi2) (k=spring constant)

*Energy Stored Kinetically*

∆Ek = m(vf2 - vi2)

*Work Power*

W= F∆x ****