**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 ****