Why and when Kinematic Equations are used

- Kinematic Equations are the _____ expressions used to predict _____ information about an object's _____.
- They can _____ be used when the _____ of an object is _____.

THE KINEMATIC EQUATIONS

- ❖ $\Delta X = V_i t + \frac{1}{2}at^2$
- ❖ $V_f = V_i + at$
- ❖ $V_f^2 = V_i^2 + 2a\Delta x$
- ❖ $\Delta X = \frac{1}{2}(V_i + V_f)t$

Your new best friends!!!

Symbols and Units Review

$\Delta X =$ _____

$V_f =$ _____

$V_i =$ _____

$A =$ _____

$\Delta t =$ _____

Don't guess, USE G.U.E.S.S!

In 1976, Kitty Hambleton of the United States drove a rocket-engine car to a maximum speed of 965 km/h. Suppose Kitty started at rest and underwent a constant acceleration with a magnitude of 4.0 m/s². What distance would she have had to travel in order to reach the maximum speed?

G	U	E	S	S
Find what is given	Find what is unknown	Find Equation to use (rearrange	Substitute	Solve
1) Write the _____ and the _____ that have been _____ to you in the problem	2) Label what is unknown with a question mark	3) LABEL the variable that is NOT BEING USED -Pick the equation that does NOT have that variable	4) Put a number in place of every variable we have	5) Do the CORRECT MATH
$V_i=$ $V_f=$ $\Delta T=$ $\Delta X=$ $A=$	$V_i=$ $V_f=$ $\Delta T=$ $\Delta X=$ $A=$			