Name key Hour _____

Variables Notes For 1-D Motion Equations

Bucket Day: _____

Variable Quiz: _____ Δ = change in

Variable: Letter in equation

unit: What the variable is measured in

Time Δt - We will measure it in seconds (s).

Distance: How far you have traveled. We will measure it in meters.

Δx = **HORIZONTAL distance** measured in m

Δy = **VERTICAL distance** measured in m

velocity: speed in a given direction.

We will measure it in m/s.

v_i = **INITIAL velocity** measured in m/s

v_f = **FINAL velocity** measured in m/s

Acceleration: How fast velocity changes measured in m/s^2.

a = **ACCELERATION** measured in m/s^2

The acceleration of an object falling toward Earth due to gravity is $-9.8\ m/s^2$.

Name _____ Hour _____

Possible Bucket Questions:

1) What is Δy? vertical distance
2) What is "a"? acceleration
3) What unit is v_f measured in? m/s
4) What is the variable for time? Δt
5) What is Δx? horizontal distance
6) What are meters used to measure? distance
7) What is v_f? final velocity
8) What is the variable used for horizontal distance? Δx
9) Δy is measured in this unit. m
10) What is v_i? initial velocity
11) What is Δt? time
12) What unit is v_i measured in? m/s
13) What two variables can be measured in m/s? v_i, v_f
14) When using Δx, you are measuring this. horizontal distance
15) What are the units for v_f? m/s
16) What is measured in seconds? time
17) What is measured in m/s^2? acceleration
18) Distance is typically measured in this unit. m
19) What is the variable used for vertical distance? Δy
20) What is the unit for acceleration? m/s^2

Make sure you know what each variable stands for in these equations below!

$$v = \frac{\Delta x}{\Delta t}$$

$$a = \frac{V_f - V_i}{\Delta t}$$

$$\Delta y = v_i \Delta t + 1/2 a \Delta t^2$$

$$v_f^2 = V_i^2 + 2a\Delta x$$