Kinematic Equations

Name_____

1) Why is math involved in PHYSICS? (0:22)

2) The Kinematic Equations can only be used when_____ (1:01)

3) Identify the following symbols and their units: (1:44)

$\Delta X =$

$Vf =$

$Vi =$

$a =$

$\Delta t =$

4) When solving Kinematic equation problems use the G.U.E.S.S. method approach...(3:29)

G_____

U_____

E_____

S_____

S_____
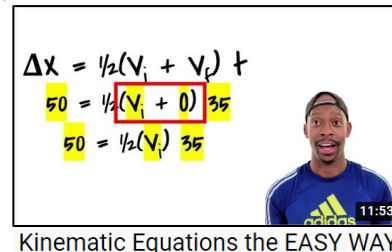
Kinematic Equations the EASY WAY

PRACTICE PROBLEM #1 I was walking home when I was chased by a dog. I ran for 35 seconds until I stopped at my home, which was 50m away. How fast was I walking before I was chased?

5) Pull out the GIVENS (3:41)	6) What is the UNKNOWN symbol? (4:42)	8) Circle the equation are we are using (5:23)	9) Write the equation with all values SUBSTITUTED in	10) Solve for the unknown variable
$Vi =$ $Vf =$ $t =$ $\Delta X =$ $a =$	7) How does the NOT USED variable help us in solving this problem? (5:17)	$\Delta X = V_i t + \frac{1}{2}at^2$ $V_f = V_i + at$ $V_f^2 = V_i^2 + 2a\Delta x$ $\Delta X = \frac{1}{2}(V_i + V_f) t$		

PRACTICE PROBLEM #2 The driver of the Dodge Chrysler Van decelerated at -5m/s² to a stop in just seven seconds after seeing a crazy man that walked out in front of him. The driver is taken to court and the plaintiff claims the driver was not driving the speed limit of 30m/s. Was the driver speeding? Prove with calculations?

11) Pull out the GIVENS	12) What is the UNKNOWN symbol?	13) What equation are we using?	14) Write the equation with all values SUBSTITUTED in	15) Solve for the unknown variable
		$\Delta X = V_i t + \frac{1}{2}at^2$ $V_f = V_i + at$ $V_f^2 = V_i^2 + 2a\Delta x$ $\Delta X = \frac{1}{2}(V_i + V_f) t$		

16) Was the man speeding? Explain