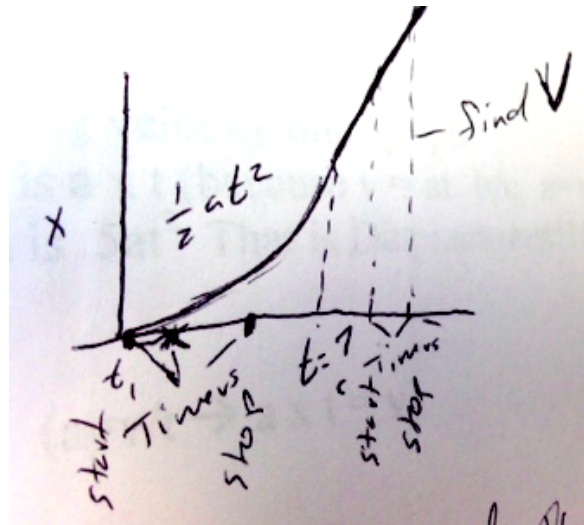


Physics
10.15.15

Sprinter Problem Possible Solution:

- You know Position time graph should look like this:

- To Find Acceleration:
 - Time: start of race to a point where the runner is still accelerating
 - Know: t , distance, $V_o = 0$, find a :
 - $D = \frac{1}{2} at^2 \rightarrow a = (2d)/t^2$
- To find t
 - Place 2 times where sprinter is not accelerating
 - Know: t , d , find V_{avg}
 - $V_{avg} = d/t$
 - Know: $V_o = 0$, $V_f = V_{avg}$, a , d , find t
 - $V_f = V_o + at \rightarrow t = V_{avg}/a$



Suggestions

- Draw a picture and use as few words as you can
- If you say you are going to use it, show it
- Draw out the graphs of the relationships that you are going to use for the analysis.