Non-Flat trajectory! Name_____

Purpose: To accurately calculate range of a projectile.

Procedure: Determine V_i as stated in class. Break into components. Calculate Maximum height reached and calculate t_{down} to floor. Calculate t_{up}. Calculate d_h. Test range measurements with the teacher watching. (No practice shots!)
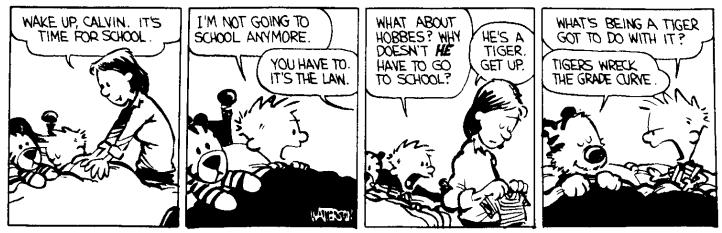
Data:

Launch Angle	Initial Velocity	Launch Height	Actual Range
o	m/s	m	m

Calculations:

V_h	V_{vi}	T_{up}	D_{up}	Total Height Reached
m/s	m/s	s	m	m
T_{down}	T_{total}	Theoretical Range	% difference	
s	s	m	%	

Questions:

1. Why can't we just use the "range" formula here?