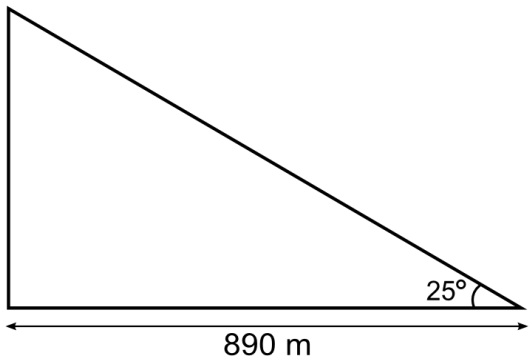
Name: _____

Lab #8: Conservation of Energy with Two Objects
Pre-Lab
(Due at the beginning of lab period)

1) This week's lab concerns energy and conservation of mechanical energy. The relevant sections of your textbook are Sections 8.1 – 8.3. That's a lot of reading (though you can be selective), so this webpage has a reasonable explanation of the concepts and a relevant example problem.

2) (a) Now, if you know that the object in question (1) has m = 75.0 kg, the angle of the incline is 25°, and *horizontal* length of the incline is 890 m (see diagram), how fast is the object going when it reaches the bottom of the incline? *Hint: if the conservation of energy stuff isn't coming together for you quite yet, you can solve this using physics we already know (forces and 1-D motion).*



(b) Note that this calculation is an approximation of a skier going down a slope. Is the answer you get in (a) a reasonable value for a skier's velocity? Why or why not?