PHYS 211 Sample Test Question

1. Distinguish conservative force from non-conservative force.

2. State the law of conservation of mechanical energy.

3. A 52 kg skier starts from rest at height *H* = 25 m above the end of a ski-jump ramp as shown below and leaves the ramp at angle *θ* = 26°.

1. What is the speed of the skier at the bottom of the ramp, if the friction/drag force is negligible?
2. What is the speed of the skier at the bottom of the ramp, if the skier experiences a friction/drag force of magnitude 35N? (Draw a free-body diagram)

