Name_____

Show your work and circle your answers to receive full credit.   Ignore air friction, use the convention that down is negative, and use g = 9.80 m/s/s.

When you have finished this, go to the website and check your answers. If you got a problem wrong, cross it off on the front, and do it correctly on the back.

A ball rolls off the edge of a 15.0 m tall cliff with a purely horizontal velocity, and strikes the ground at a distance of 12.4 m from the base of the cliff.

1. What time was the ball in the air?

2. What was the ball's horizontal velocity?

3. What is the final vertical velocity?
(Just before it hits the ground)

4-5: Draw a picture of the final velocity of impact. Calculate the speed it is traveling, and find the angle below horizontal the velocity makes.