Discussion (circle): 10 AM 11 AM 12 PM Name: _____

Math 180, Quiz 5: Thursday, February 28, 2013

Take fifteen minutes to complete this quiz. Please show all your work, and write your name on the front *and* back of the paper before turning it in.

1. **(5 points)** A coin is thrown from the roof of a building. Its height, in meters above the ground, is given by $h(t) = 30 + 5t - 5t^2$, where t is the time in seconds since the coin was thrown. How fast is the coin going right as it hits the ground?

2. **(4 points)** A piñata hangs from a spring. Its height at time t given by $y(t) = 15\cos(2\pi t) + 20$. Find its velocity and acceleration at $t = 5$.

3. **(1 points)** Find $g'(x)$, where $g(x) = x\sin(x) + 2$.