

## Phys101 Assignment Cover Sheet

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_ Mark: \_\_\_\_\_

Student ID: \_\_\_\_\_ Date: \_\_\_\_\_

## Phys101 Written Assignment #10

Due Mon/Tue Nov 28/29, 2011, in the tutorial

Textbook (Giancoli, 6th edition) page 348 problem #53, 54.

53. (II) A bat at rest sends out ultrasonic sound waves at 50.0 kHz and receives them returned from an object moving directly away from it at 25.0 m/s. What is the received sound frequency?
54. (II) A bat flies toward a wall at a speed of 5.0 m/s. As it flies, the bat emits an ultrasonic sound wave with frequency 30.0 kHz. What frequency does the bat hear in the reflected wave?