

## Phys101 Assignment Cover Sheet

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

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

## Phys101 Written Assignment #2

Due Friday May 17, 5:00pm.

Textbook (Giancoli, 6th edition) page 103 question #63.

- 63.** A block (mass  $m_1$ ) lying on a frictionless inclined plane is connected to a mass  $m_2$  by a massless cord passing over a pulley, as shown in Fig. 4–57. (a) Determine a formula for the acceleration of the system of the two blocks in terms of  $m_1$ ,  $m_2$ ,  $\theta$  and  $g$ . (b) What conditions apply to masses  $m_1$  and  $m_2$  for the acceleration to be in one direction (say,  $m_1$  down the plane), or in the opposite direction?

