Written Homework #8

Physics 131 Spring 2009

Due on Friday 3 April 2009 at the beginning of lecture.

Write down your name and student ID number.

In order to handle a hot pizza of mass 1.0 kg, a cook slides a light (i.e., of negligible mass) but stiff spatula of length 2.0 m from the right hand to the center of the pizza, which he then carries horizontally with both hands. His right hand is at one end of the pole (point A); his left hand is at a distance 0.50 m farther down the pole (point B); and the pizza is at the other end.



- a. Draw a diagram of the spatula showing the forces acting on it. Make sure to label the force vectors and to draw them with correct approximate lengths. [You will need to solve parts b and c of this problem to determine these lengths.]
- b. Determine the force exerted by the left hand on the spatula at point B.
- c. Determine the force exerted by the right hand on the spatula at point A.
- d. In which direction is the force exerted by the right hand?

Show your work to get full credit.