

Written Homework #5

Physics 131 Spring 2009

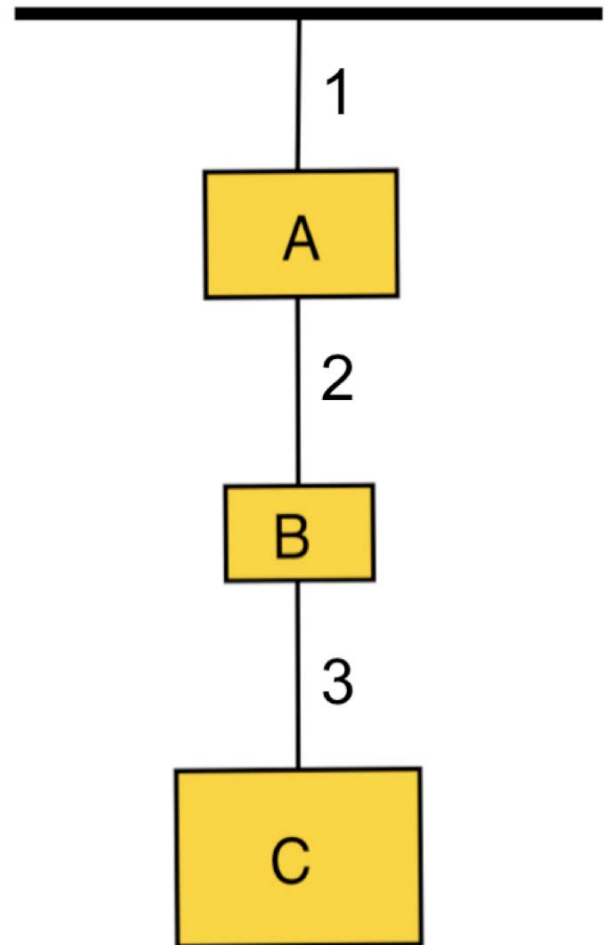
Due on Friday 6 Mar 2009 at the beginning of lecture.

Write down your name and student ID number.

Blocks A, B and C hang from the ceiling and are connected by three ropes labeled 1, 2 and 3. Block A weighs 10 lbs, block B weighs 5 lbs and block C weighs 20 lbs.

- List the forces acting on block A, compute their magnitudes and draw a free-body diagram.
- List the forces acting on block B, compute their magnitudes and draw a free-body diagram.
- List the forces acting on block C, compute their magnitudes and draw a free-body diagram.

Be sure to draw force vectors with a length proportional to the magnitude of each force. Label tension with the rope number (e.g. T_2) and weight with the block letter (e.g. w_C).



Show your work to get full credit.