The problems for Lecture 18 are Chapter 8 problems 2, 4, 5, 8.

The problems for Lecture 19 are Chapter 8 problems 14, 19, 23, 25, 27, 37, 51 from the text.

There are no problems assigned from Lecture 20.

The following additional problems are assigned:

1. Two blocks, A and B (with masses 50 kg and 100 kg respectively), are connected by a string as shown in the figure. The pulley is frictionless and of negligible mass. The coefficient of kinetic friction between block A and the incline is 0.25. Determine the change in kinetic energy of block A as it moves from C to D, a distance of 20 m up the incline.

2. A 3 kg particle moves from the origin to the position having coordinates x=5m and y=5m, under the influence of gravity acting in the negative y direction. The positive x direction is parallel to the path OA. Calculate the work done by gravity when the particle goes from O to C along the following paths: (a) OAC, (b) OBC, (c) OC. Your results should all be identical. Why?