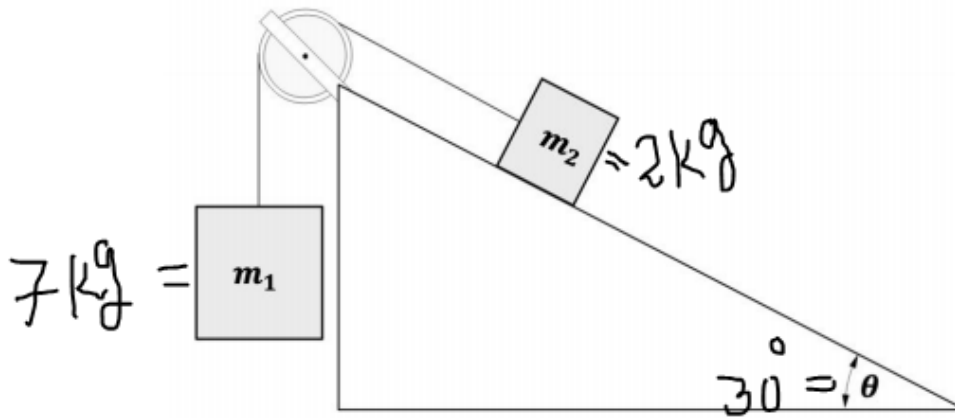


The two objects shown below are connected by a massless string which passes over a frictionless pulley. As the 2.00 kg object slides over the inclined surface, the coefficient of kinetic friction is 0.35 .



a. Calculate the acceleration of the objects.

[6]

b. Calculate the tension in the string.

[2]

in the diagram below, a boy pulls a dog in a toy wagon (combined mass of 120 kg) with a force of 265 N along the rope. The rope is at an angle of 48.0° to the horizontal. Determine the amount of work the boy does when he pulls the wagon 16.5 m .

