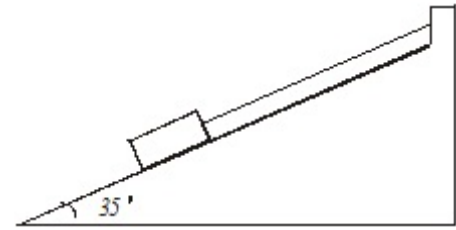


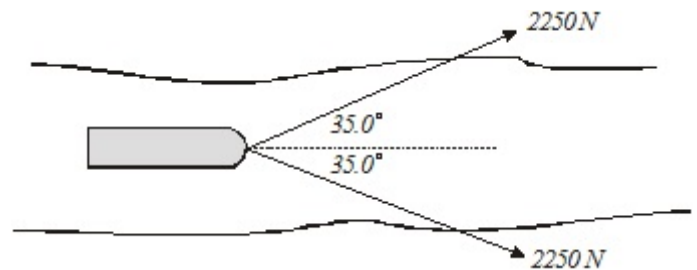


5. A 34.5 kg block rests on the ramp as shown in the drawing. What is the tension in the line that is connected to the top of ramp?

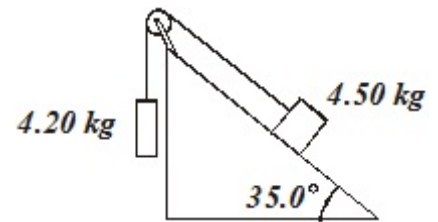


6. A 7.00 kg ball rolls down a 17.5° ramp. (a) What is the acceleration of the ball? (Ignore friction) (b) If the ramp is 2.00 m long, how much time to reach the bottom?

7. A barge is towed by two mules as shown in the drawing. (a) What is the net force acting on the barge when the tow begins if the frictional force that must be overcome is 1 250 N? (b) Later the barge is moving at 2.5 km/h, what is the net force acting on it?



8. A 4.50 kg block rests on a smooth ramp as shown. It is attached to a 4.20 kg block by a very low mass string that is run over a low friction pulley. (a) In what direction will the blocks travel? And (b) What will be the acceleration of the blocks when the system is released?



9. Two masses are connected by a light string that runs over a frictionless pulley as shown. What is the acceleration of the system when the masses are released and allowed to move?

