P11 - 6.1 - Work Hmk

What is the work done on an object with a force of 20 N over a distance of 50 m? How much energy was exerted?

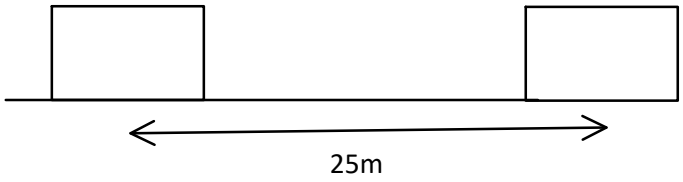
What is the work done lifting an object with the mass of eight kilograms straight up a distance of 4 m?

A backpack with the mass of 3 kg is carried to school at a constant height of 1.3 m. How much work is done on the backpack?

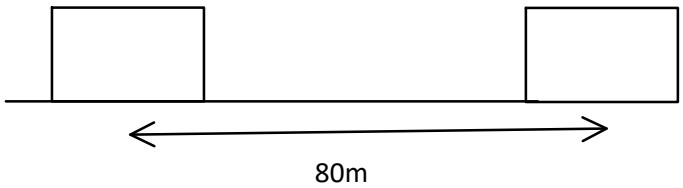
A 5 kg case is carried up a 20 meter ramp over a height of 4 m. What is the work done on the case?

P11 - 6.1 - Work HMK

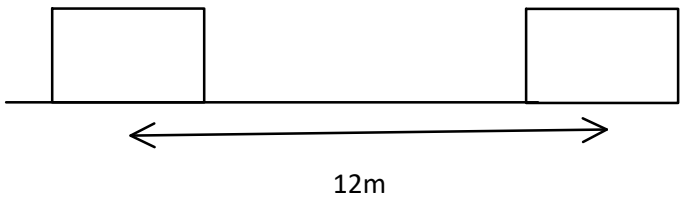
What is the work done on an object with a Push Force of $10\ N$ *and a frictional force of* $10\ N$ *over a distance of* $20\ m$.



What is the work done on an object with a Force of $15\ N$ *and a frictional force of* $6\ N$ *over a distance of* $80\ m$.



What is the net work done on a $30\ kg$ *object accelerating at* $3\frac{m}{s^2}$ *over a distance of* $12\ m$.



P11 - 6.2 - Energy Hmk

What is the kinetic energy of a 20 kg object moving at 12 m/s?

What is the kinetic energy on a 4 kg object moving at 280 m/s?

What is the potential energy of an object of 10 kg 20 m above the ground?

What is the potential energy of a 15 kg object 2000 m above the ground?

A 5 kg object is dropped from 20 m. What is the total energy at the top. What is the kinetic energy and velocity and potential energy at 15 m? What is the kinetic energy and velocity and potential energy before impact?

P11 - 6.2 - Law Of Conservation Of Energy Hmk

What is the final velocity before impact and time in flight of a 10 kg ball if dropped from 20 m?

What is the fina before impact and time in flight of a 50 kg ball dropped from 18 m?

P11 - 6.2 - Energy Work Mom. Dyn. Kin Link Hmk

What is the final velocity of an 8 kg object initially at rest with the force of 20 newtons over a distance of 20 m?

What is the object's acceleration? How long did it take? What is the final momentum of the ball?

What is the final velocity of a 12 kg object initially at rest, with the force of 80 N over a distance of 20 m?

What is the object's acceleration? How long did it take? What is the final momentum of the ball?

P11 - 6.3 - Slide Energy Hmk

A ball initially at rest rolls down a 20 meter high frictionless slide over a distance of 20 m. What is the final velocity of the ball?

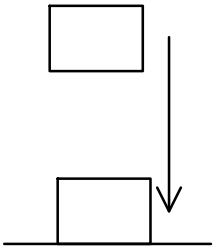
A ball initially at rat rolls ?down a 12 meter high frictionless slide over a distance of 10 m. what is the final velocity of the ball

At 40 kg skier initially at rest travels down a mountain 20 m high. What is the velocity of the skier at 8 m above the ground?

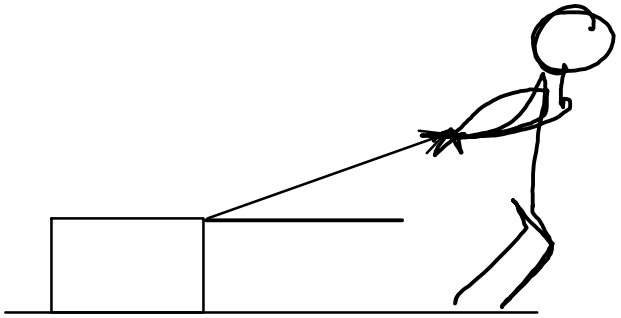
As snowboarder o initially at rest travels down a 70 meter high mountain. What is the velocity of the snowboarder at 10 m above the ground?

P12 - 6.4 - Work Trig HMK

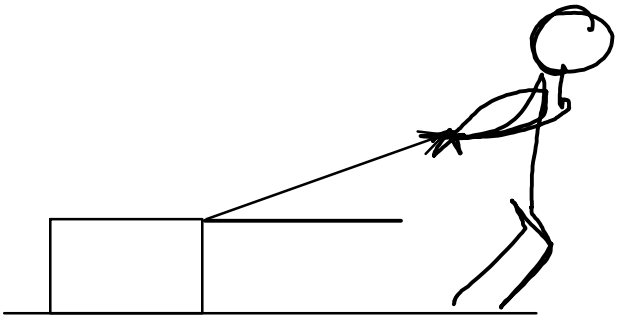
What is the work done dropping an Object with a Mass of $80\ kg$ *a distance of* $4\ m.$



What is the work done on an object with a Force of $80\ N$ *at an angle of* 25^0 *to the horizontal over a distance of* $15\ m.$



What is the Net work done on a $80\ kg$ *object with a Force of* $250\ N$ *and a coefficient of friction* $\mu = 0.3$ *at an angle of* 15^0 *to the horizontal over a distance of* $12\ m.$



P11 - 6.5 - Power Hmk

How much power if 100 J of the work is done on an object for 10 seconds?

How much power it 50 J of work is done on an object for eight second?

How much power does it take for a motor to push a 20 kg object from rest to 10 m/s over a distance of 20 m in four seconds?

What is the efficiency of the motor if it says 1000 W on the side?