P11 - 3.2 - $F = ma$ Newton's Laws Hmk

What is the force required to accelerate a 12 kg object at 5 m/s squared?

What is the force required to accelerate a 17 kg object at 3 m/s squared?

What is the force required to accelerate an 8 kg object at 4 m/s squared with the frictional force of 2 N?

What is the force at 6 m/s squared with the frictional force of 3 N?

A force of 20 N is applied to a 5 kg object. Find its acceleration.

A force of 16 N accelerates an object at 4 m/s squared. Find the mass of the object. What is the objects weight?

An applied 36 N on a 9 kg object accelerates it at 3 m/s squared? What is the frictional force?

What is the force required to accelerate a 20 kg object at 4 m/s squared with the coefficient of friction of 0.1?

P11 - 3.3 - $F_f = \mu F_n$ Dynamics Hmk

What is the force required to accelerate a 20 kg object at 4 m/s squared with the coefficient of friction of 0.1?

What is the force required to accelerate a 36 kg object at 6 m/s squared with the coefficient of friction of 0.3?

P11 - 3.4 - Tension WS

At person pulls on a 40 kg block attached by a string to a 30 kg block. What is the acceleration of the system? What is the tension on the 40 kg block and the tension on the 30 kg block? Ignore friction.

At person pulls on a 40 kg block attached by a string to a 30 kg block with a frictional force of 35 N. What is the acceleration of the system? What is the tension on the 40 kg block and the tension on the 30 kg block?

At person pulls on a 40 kg block attached by a string to a 30 kg block with a coefficient of friction of 0.2. What is the acceleration of the system? What is the tension on the 40 kg block and the tension on the 30 kg block?

P11 - 3.4 - Tension WS

At 50 kg and a 20 kg block are attached to a pulley. What is the acceleration of the system? What is the tension on the 50 kg block and what is the tension on the 20 kg block.

At 15 kg block is suspended in midair connected to a pulley and another 5 kg object on a horizontal surface. What is the acceleration of the system? What is the tension on the 15 kg block and what is the tension on the 5 kg block? Ignore friction.

P11 - 3.5 - Elevator Hmk

What is the weight of a 30 kg object on a scale in Newton's in a stationary elevator?

What is the weight of a 30 kg object on a scale in a elevator moving at a constant velocity of 10 m/s?

What is the weight of a 30 kg object on a scale in an elevator accelerating upwards at 3 m/s squared?

What is the weight of a 30 kg object on a scale and an elevator accelerating downwards at 5 m/s squared?

P11 - 3.6 - Kinematics Dynamics Link

What is the force required to accelerate a 10 kg object from rest to 12 m/s in eight seconds?

How far did the object go?

What is the velocity after seven seconds?

How long will it take to reach 36 m/s?

What is the mass of an object which can accelerate at 2 m/s squared from rats to 8 m/s in 20 m?

P11 - 3.7 - Gravitational Force F_g

What is the gravitational force on a 10 kg object on earth? Use both the gravitational constant and Newton's second law course is equal to mass times acceleration.

What is the gravitational force on a 200 kg object on earth?

What is the gravitational force on at 2000 kg object satellite hovering above the earth's surface at 20,000 m?

What is the gravitational force between two pool balls of 1 kg 1 m apart

P12 - 3.8 - Dynamics Trig HMK

Find the acceleration of the force of 80 N on a 25 kg object hold at an angle of 30° above the horizontal on a frictionless surface.

Find the acceleration of the force of 120 N on a 55 kg object hold at an angle of 20° above the horizontal on a frictionless surface.

Find the mass of an object which accelerates at 5 m/s squared by a force of 60 N at an angle of 15° above the horizontal on a frictionless surface.

Find the force required to accelerate an 8 kg object at an angle of 40° above the horizontal on a frictionless surface.

P12 - 3.8 - Dynamics Trig Fric HMK

Find the acceleration of the force of 45 N on a 2 kg object hold at an angle of 15° above the horizontal with a coefficient of friction of 0.25.

Find the acceleration of the force of 160 N on a 50 kg object hold at an angle of 65° above the horizontal with a coefficient of friction of 0.15.

Find the mass of an object which accelerates at 12 m/s squared by a force of 140 N at an angle of 20° above the horizontal with a coefficient of friction of 0.1.

Find the force required to accelerate a 18 kg object at an angle of 55° above the horizontal with a coefficient of friction of 0.4.

P12 - 3.9 - Dynamics Fric Slope HMK

Find the acceleration of an 8 kg block sliding down a 40° frictionless slope.

Find the acceleration of an 26 kg block sliding down a 60° frictionless 60° slope.

Find the acceleration of a 5 kg block sliding down a 45° slope with a coefficient of friction of 0.2.

Find the acceleration of a 12 kg block sliding down a 20° slope with the coefficient of friction of 0.05.

P12 - 3.9 - Dynamics Pull Fric Slope HMK

Find the force required to accelerate a 12 kg object at 5 m/s squared up a frictionless 25° slope

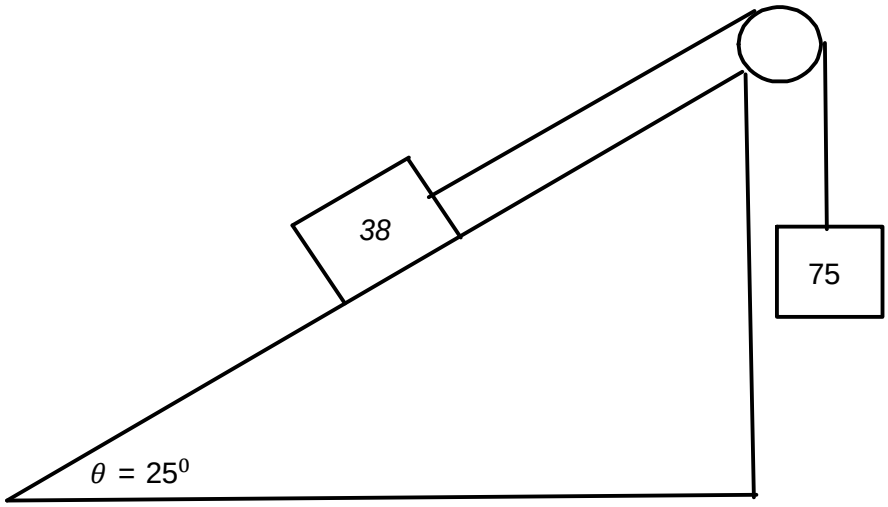
Find the acceleration of an 80 Newton force on a 8 kg object up a frictionless slope of 42°.

Find the force required to accelerate a 16 kg object at 3 m/s squared up a 35° slope with a coefficient of friction of 0.15.

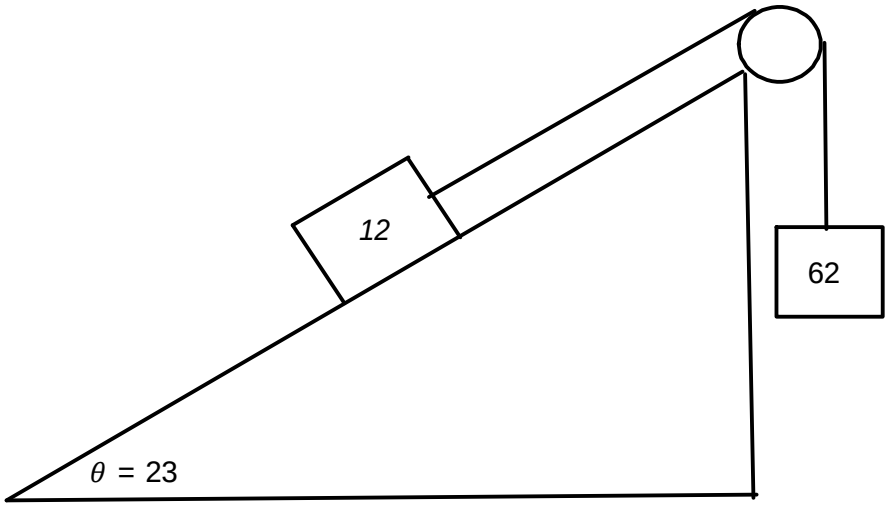
Find the acceleration of a 65 Newton force on a 10 kg object up a slope of 48° with the coefficient of friction of 0.2.

P12 - 3.9 - Dynamics Pulley Fric Up Slope HMK

Find the acceleration of the system and the tension on both blocks?

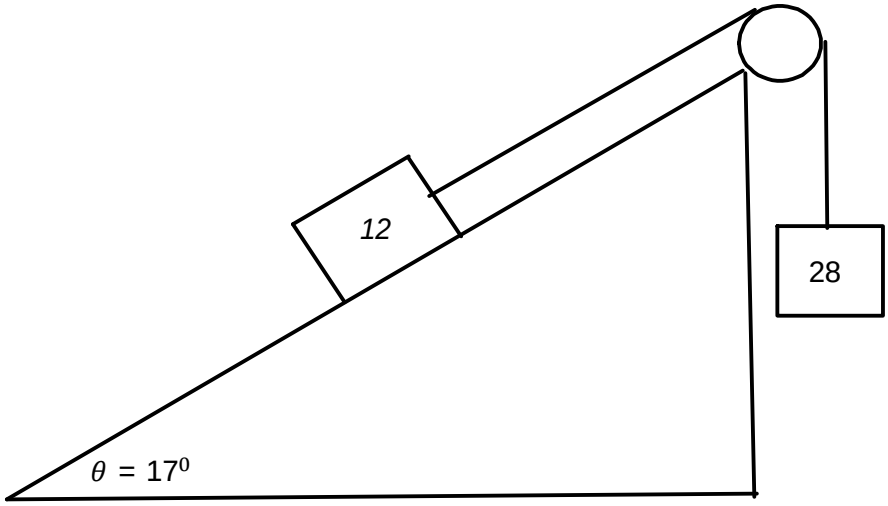


Find the acceleration of the system and the tension on both blocks?



P12 - 3.9 - Dynamics Pulley Fric Up Slope HMK

Find the acceleration of the system and the tension on both blocks?



Find the acceleration of the system and the tension on both blocks?