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(4.01) Force Types Worksheet

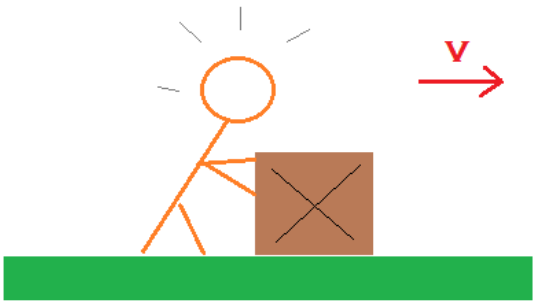
Use the image to the right to answer questions #1-2, where a man standing on a roof uses a rope to lift a package to his location.

1. Which forces act on the package while it is being lifted upwards?
   **circle all that apply*
   a. A force of gravity from the Earth
   b. A normal force from the ground
   c. A normal force from the roof
   d. A misc. pulling force from the man
   e. A tension force from the rope
   f. A kinetic friction force from the roof
   g. A static friction force from the roof

2. For the forces that you have circled for question #1, in which direction do each of these forces act? Write your answers in the space below.

Use the image to the right to answer questions #3-4, where a man pushes a crate to the right across a rough, grassy surface.

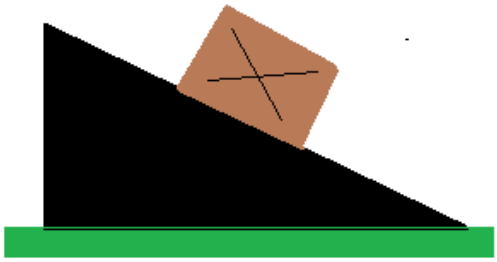
3. Which forces act on the crate while it is being pushed and moves to the right?
   **circle all that apply*
   a. A force of gravity from the Earth
   b. A normal force from the ground
   c. A normal force from the man
   d. A misc. pushing force from the man
   e. A tension force from the rope
   f. A kinetic friction force from the grass
   g. A static friction force from the grass



4. For the forces that you have circled for question #3, in which direction do each of these forces act? Write your answers in the space below.

Use the image to the right to answer questions #5-6, where a box sits at rest on an angled surface. The angled surface sits on top of a rough, grassy surface.

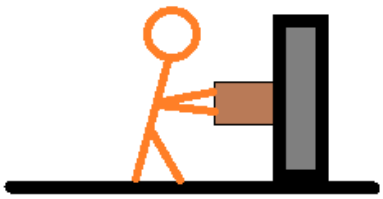
5. Which forces act on the box while it sits motionless on the ramp?
   **circle all that apply*
   a. A force of gravity from the Earth
   b. A normal force from the angled surface
   c. A normal force from the grassy surface
   d. A kinetic friction force from the angled surface
   e. A kinetic friction force from the grassy surface
   f. A static friction force from the angled surface
   g. A static friction force from the grassy surface



6. For the forces that you have circled for question #5, in which direction do each of these forces act? Write your answers in the space below.

Use the image to the right to answer questions #7-8, where a man pushes horizontally on a box to hold it in place against a wall.

7. Which forces act on the box while it sits motionless against the wall?
   **circle all that apply*
   a. A force of gravity from the Earth
   b. A normal force from the ground
   c. A normal force from the wall
   d. A misc. pushing force from the man
   e. A kinetic friction force from the wall
   f. A static friction force from the wall
   g. A static friction force from the ground.



8. For the forces that you have circled for question #7, in which direction do each of these forces act? Write your answers in the space below.