



Figure 1: A rectangular box with a lid.

The box is made of a material with a density of ρ and a thickness of t . The box is filled with a material with a density of ρ_f .

The box is placed on a horizontal surface. The surface is frictionless.

The box is pushed by a force F applied at the top edge, parallel to the surface.

The box is pushed from the left side.

The box is pushed with a constant velocity v .

The box is pushed for a distance d .

The box is pushed for a time t .

The box is pushed for a distance d and a time t .



Figure 2: A solid black rectangular block.

The block is made of a material with a density of ρ and a thickness of t .

The block is placed on a horizontal surface.

The block is pushed by a force F applied at the top edge, parallel to the surface.

The block is pushed from the left side.

The block is pushed with a constant velocity v .

The block is pushed for a distance d .

The block is pushed for a time t .

The block is pushed for a distance d and a time t .



Figure 3: A solid black rectangular block.

The block is made of a material with a density of ρ and a thickness of t .

The block is placed on a horizontal surface.

The block is pushed by a force F applied at the top edge, parallel to the surface.