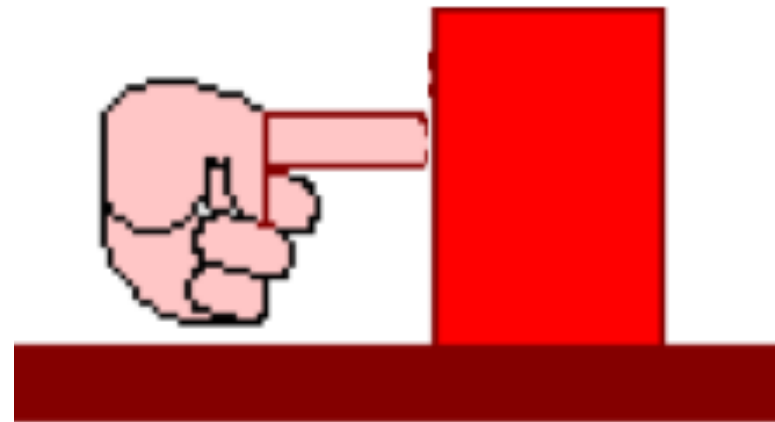




Suppose I start pushing a box along a table. The box slowly starts moving. While the box is speeding up, there are two horizontal forces acting on the box: $f_{T \rightarrow B}$ and $N_{f \rightarrow B}$. Which force is bigger?

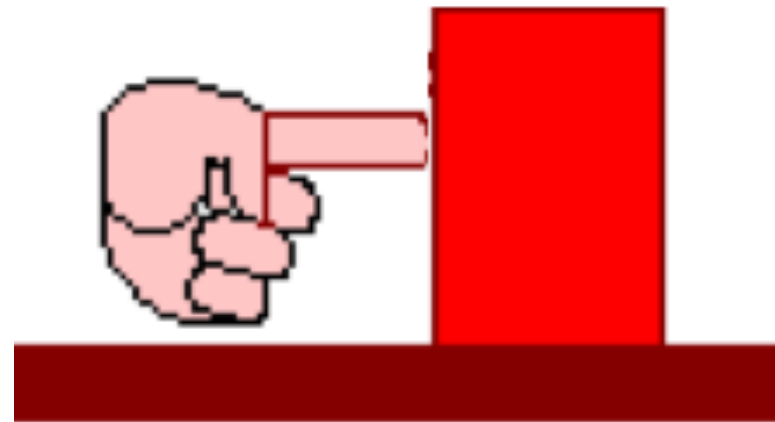
- A. $f_{T \rightarrow B} > N_{f \rightarrow B}$
- B. $f_{T \rightarrow B} < N_{f \rightarrow B}$
- C. $f_{T \rightarrow B} = N_{f \rightarrow B}$
- D. You can't tell from the information





Suppose I start pushing a box along a table. The box slowly starts moving. At some point, the box settles down to a constant velocity. At that point, there are still two horizontal forces acting on the box: $f_{T \rightarrow B}$ and $N_{f \rightarrow B}$. Which force is now bigger?

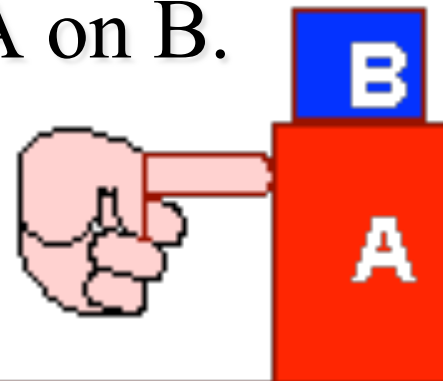
- A. $f_{T \rightarrow B} > N_{f \rightarrow B}$
- B. $f_{T \rightarrow B} < N_{f \rightarrow B}$
- C. $f_{T \rightarrow B} = N_{f \rightarrow B}$
- D. You can't tell from the information given.





Suppose I start pushing a box along a table that has a box sitting on top of it. The boxes slowly start moving and the top one doesn't slip. Box B is accelerating to the right. What unbalanced force is responsible for this?

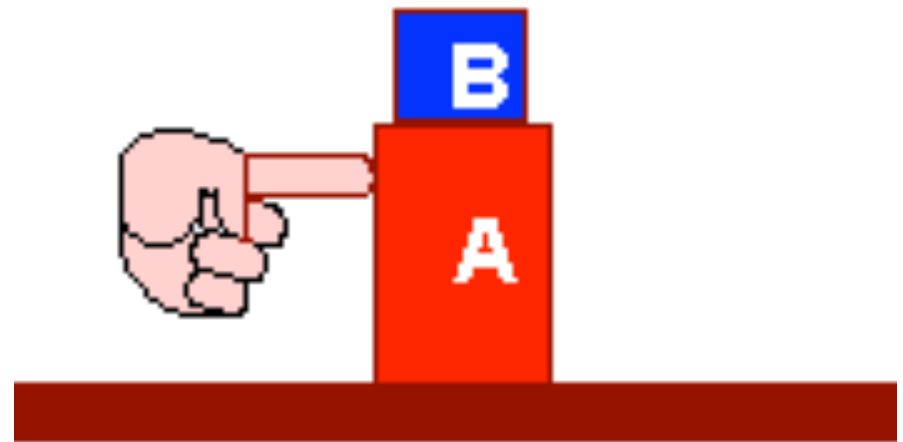
- A. The push of the finger.
- B. The normal force of box A on B.
- C. The friction force of box A on B.
- D. The weight of box B.
- E. Something else.





Suppose I start pushing a box along a table that has a box sitting on top of it. The boxes slowly start moving and the top one doesn't slip. If there is a friction force from box A on box B, in what direction does it point?

- A. There is no friction between the boxes.
- B. Left
- C. Right
- D. Up
- E. Down
- F. You can't tell from the information given.





You start your car from rest at a stoplight and speed up from 0 to 30 miles/hr in 3.7 seconds. What force is responsible for the acceleration of your car?

- A. The force of your foot on the gas pedal.
- B. The force of the engine.
- C. The force of friction that your wheels exert on the ground.
- D. The force of friction that the ground exerts on your wheels.

