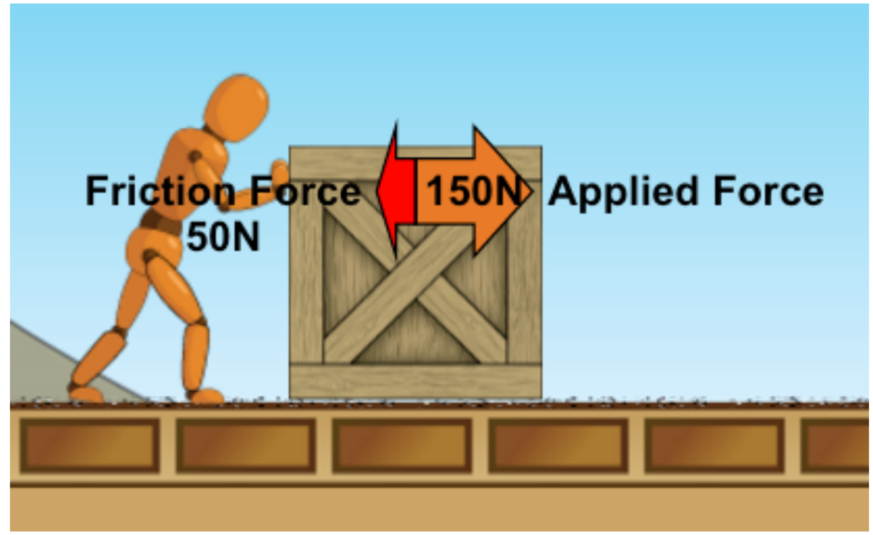
A worker is pushing a box along a floor that has friction.

The worker pushes with a force of 150 N and the friction is 50 N.

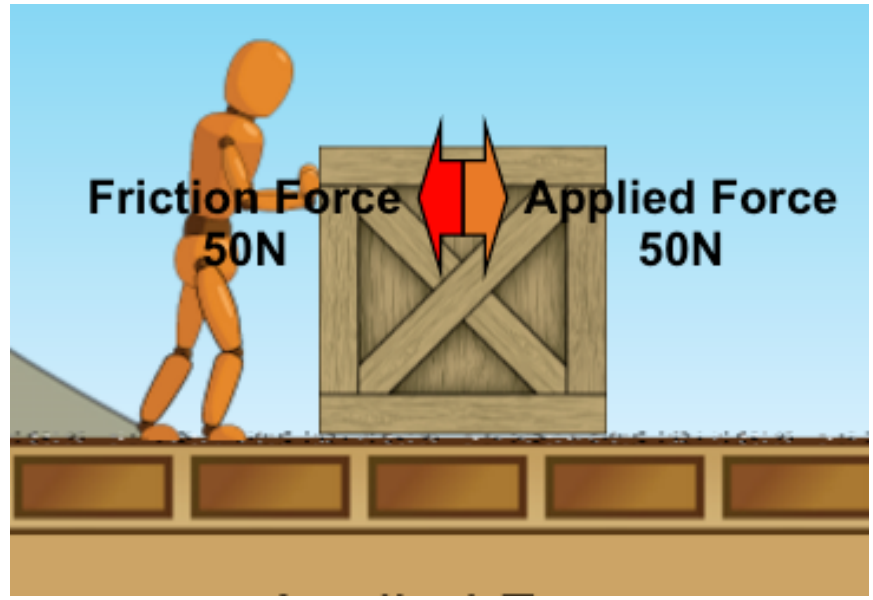


What happens to the box?

A. It doesn't move.
B. It moves with a constant velocity.
C. It speeds up.
D. It slows down.
E. There isn't enough information to decide.

A worker is pushing a box along a floor that has friction.

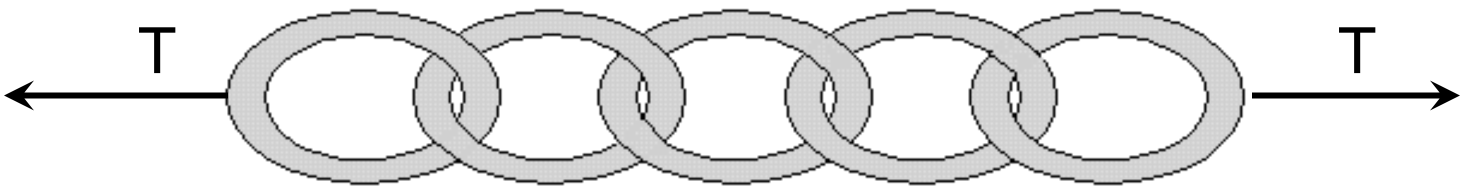
The worker decides to reduce the force of his push to 50 N. The friction is 50 N.



What happens to the box?

A. It stops.
B. It moves with a constant velocity.
C. It speeds up.
D. It slows down.
E. There isn't enough information to decide.

Consider a series of 5 links of chain being pulled from opposite directions by equal forces, *T*. What is the **net force on the middle link**?



A. T

B. $T/5$

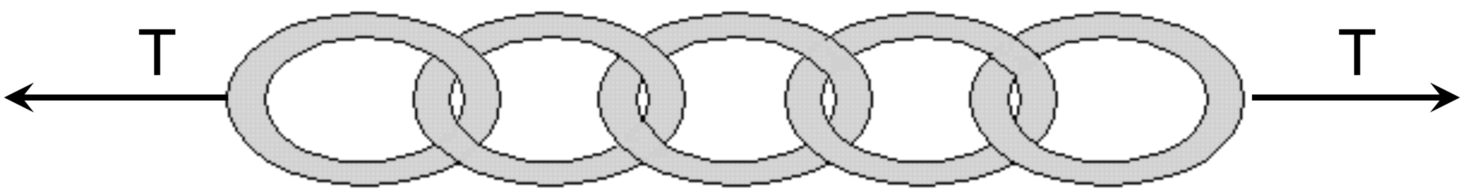
C. $T/10$

D. 0

E. Something else

F. There's not enough information to decide

Consider a series of 5 links of chain being pulled from opposite directions by equal forces, *T*. What are the magnitudes of the **forces pulling in opposite directions** **on the middle link**?



A. *T*

B. *T*/5

C. *T*/10

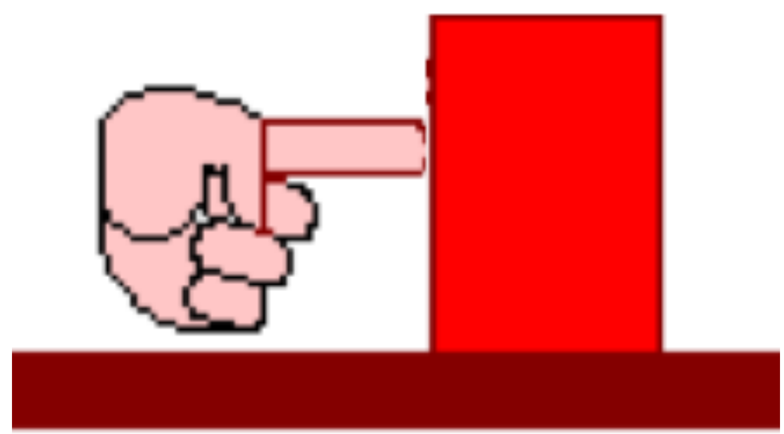
D. 0

E. Something else

F. There's not enough information to decide

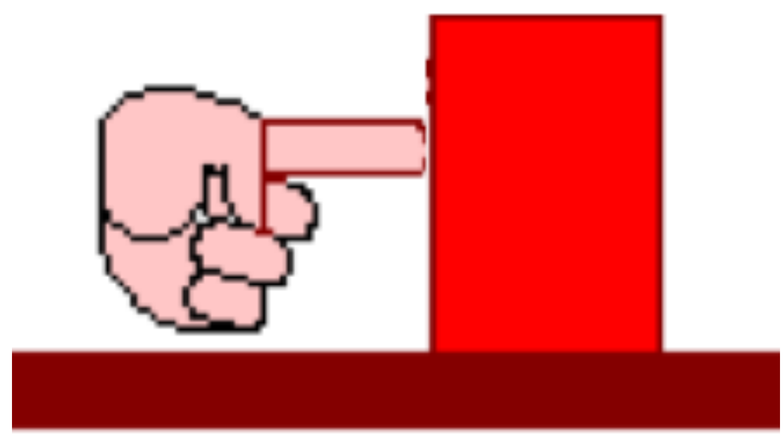
Suppose I start pushing a box along a table. The box slowly starts moving. While the box is speeding up, there are two horizontal forces acting on the box: $f_{T \to B}$ and $N_{f \to B}$. Which force is bigger?

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



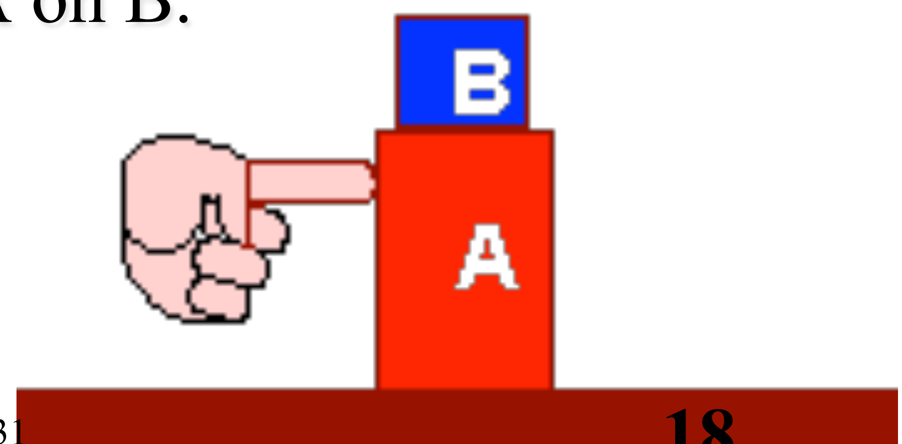
Suppose I start pushing a box along a table. The box slowly starts moving. At some point, the box settles down to a constant velocity. At that point, there are still two horizontal forces acting on the box: $f_{T \rightarrow B}$ and $N_{f \rightarrow B}$. Which force is now bigger?

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.



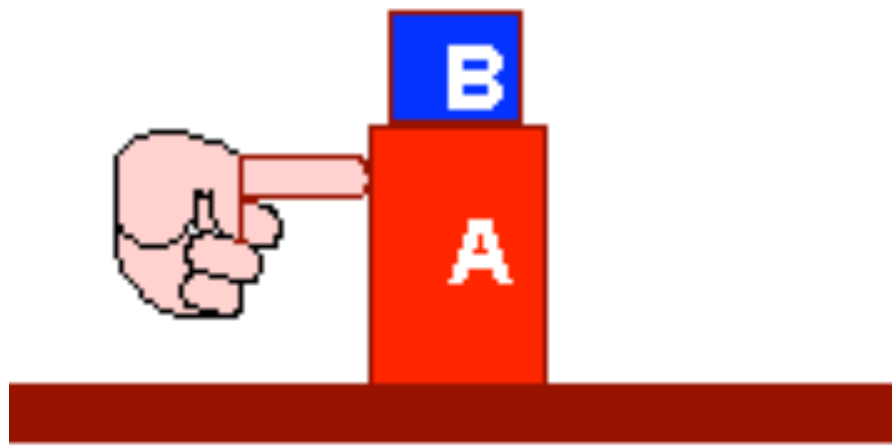
Suppose I start pushing a box along a table that has a box sitting on top of it. The boxes slowly start moving and the top one doesn't slip. Box B is accelerating to the right. What unbalanced force is responsible for this?

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 are accelerating to the right 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.



Which ball will hit first?

1. The shot one
2. The dropped one
3. They' ll hit
   at the same time
4. You can' t tell
   from the information
   given.