

Question 1

A 10 kg box is at rest on a horizontal surface while a rope pulls on it as illustrated. The coefficient of static friction between the block and surface is $\mu_s = 0.50$.

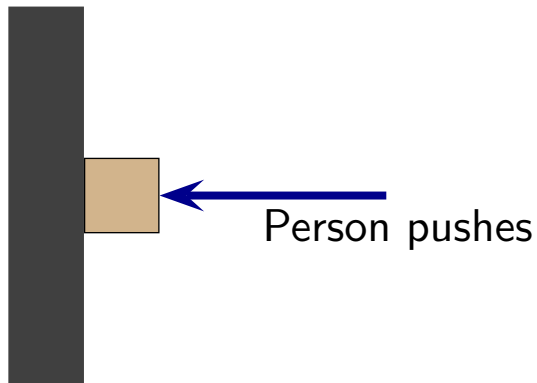


Which of the following is true?

1. The static friction force is less than 30 N.
2. The static friction force is 30 N.
3. The static friction force is 0.50 N.
4. The static friction force is 49 N ($= \mu_s mg$).

Question 2

A person pushes horizontally on a block in order to hold it against a vertical wall. The block is at rest.



Which of the following is true?

1. As the person pushes harder, the friction force stays the same.
2. As the person pushes harder, the friction force increases.
3. As the person pushes harder, the friction force decreases.
4. Angels are holding the block up.