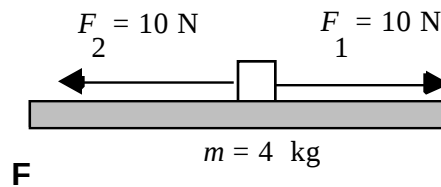
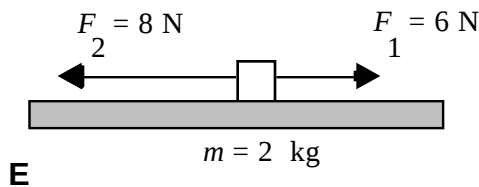
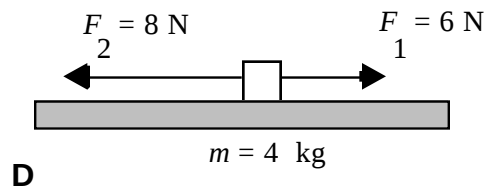
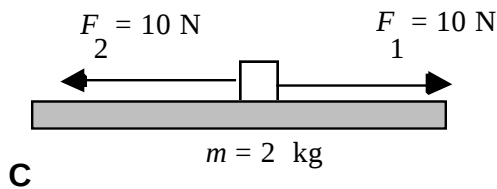
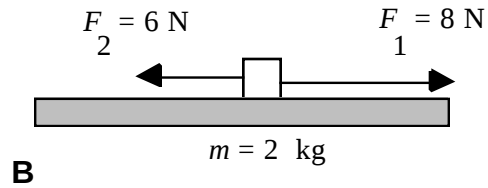
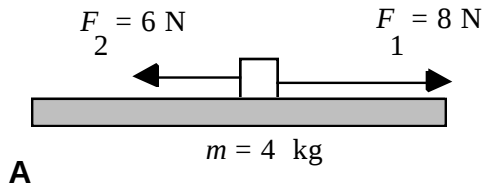


Forces on Objects on Rough Surfaces—Velocity Change ³⁴

Two forces act on identical objects that are on rough surfaces, as shown below. The forces of maximum static and kinetic friction for each case are both 1 N. Rank these situations from greatest change in velocity to least change in velocity. (Note: All vectors directed to the right are positive, and those to the left are negative. Also, $0 \text{ m/s} > -10 \text{ m/s}$.) All objects start at rest.



Greatest 1_____ 2_____ 3_____ 4_____ 5_____ 6_____ Least

Or, the change in velocity is the same in all cases. _____

Please carefully explain your reasoning.

How sure were you of your ranking? (circle one)

Basically Guessed

Sure

Very Sure

1 2 3 4 5 6 7 8 9 10

³⁴ R. Krupp