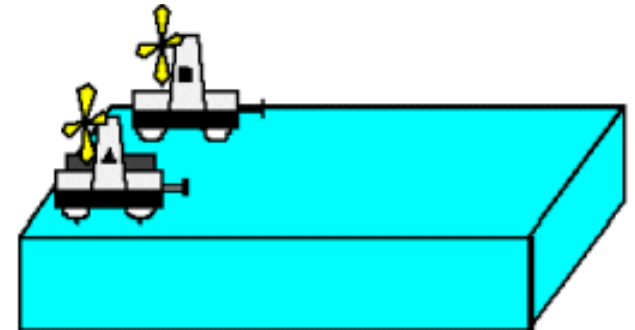


Two fan carts are on opposite sides of a table with their fans pointed in the same direction. Cart A is twice as heavy as cart B. When the fans are on, they cause the air to exert a constant force of the cart independent of its mass. Assume friction can be neglected. The fans are set with a timer so that after they are switched on, **they stay on for a fixed length of time, Δt , and then are turned off.**



Just after the fans are turned off, which is true about the momenta of the two carts?

- (A) $\mathbf{p}_A > \mathbf{p}_B$
- (B) $\mathbf{p}_A < \mathbf{p}_B$
- (C) $\mathbf{p}_A = \mathbf{p}_B$

Which ball will knock the block over?



1. A superball
2. A clay ball of equal mass
3. Both
4. Neither

