

## Classwork 3/16

1. A 44 kg student on skates throws a 22 kg exercise ball. Both were initially at rest. After throwing the ball, the student glides back at  $3.5 \text{ m/s}$ . What is the velocity of the ball?
2. Two objects have a head-on collision. If you know the change in momentum of one object, can you find the change in momentum of the other object?
3. A boy on skates is initially at rest. He then tosses a 8.0 kg jug of water  $3.0 \text{ m/s}$  forward. The boy moves in the opposite direction at  $0.60 \text{ m/s}$ . What is the mass of the boy?