

- 6** A jet of water of density  $1000 \text{ kg m}^{-3}$  leaves the nozzle of a hose of radius  $2.0 \times 10^{-2} \text{ m}$ . The water is directed perpendicularly to the wall at a speed of  $0.50 \text{ m s}^{-1}$ . Assume that the water does not rebound.

What is the force exerted on the wall by the water?

**A**  $0.314 \text{ N}$

**B**  $0.628 \text{ N}$

**C**  $1.27 \text{ N}$

**D**  $15.7 \text{ N}$