

18 Brownian motion can be demonstrated by illuminating smoke particles inside a closed, transparent container. When the particles are viewed using a microscope, bright specks of light are observed to move with constant, random motion.

What **cannot** be inferred from this observation?

- A Air molecules are in constant motion.
- B Air molecules are in random motion.
- C Air pressure is due to air molecules colliding with the container.
- D The mass of an air molecule is much less than the mass of a smoke particle.

19 A U-tube has one arm of area of cross section  $A$  and the other of cross section  $4A$ . The tube