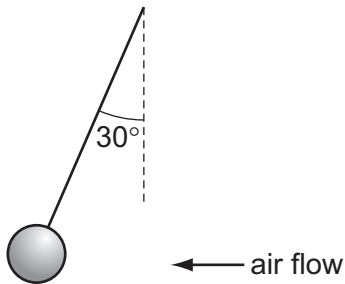


- 15** The diagram shows an experiment to measure the force exerted on a ball by a horizontal air flow.



The ball is suspended by a light string and weighs  $0.15\text{ N}$ .

The deflection of the string from vertical is  $30^\circ$ .

What is the force on the ball from the air flow?

- A**  $0.075\text{ N}$       **B**  $0.087\text{ N}$       **C**  $0.26\text{ N}$       **D**  $0.30\text{ N}$

- 16** A student balances a  $20\text{ cm}$  ruler on a fulcrum set at the  $15\text{ cm}$  mark. She then places a  $50\text{ g}$