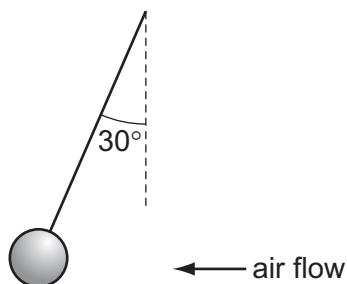


- 15 The diagram shows an experiment to measure the force exerted on a ball by a horizontal air flow.



The ball is suspended by a light string and weighs 0.15 N .

The deflection of the string from vertical is 30° .

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

- A** 0.075 N **B** 0.087 N **C** 0.26 N **D** 0.30 N
- 16 A student balances a 30 cm ruler on a fulcrum set at the 15 cm mark. She then places a 50 g mass on the 23 cm mark and a 20 g mass on the 11 cm mark, as shown.



Which mass should she place on the 7 cm mark to restore the balance?

- A** 30 g **B** 40 g **C** 47 g **D** 133 g

Space for working