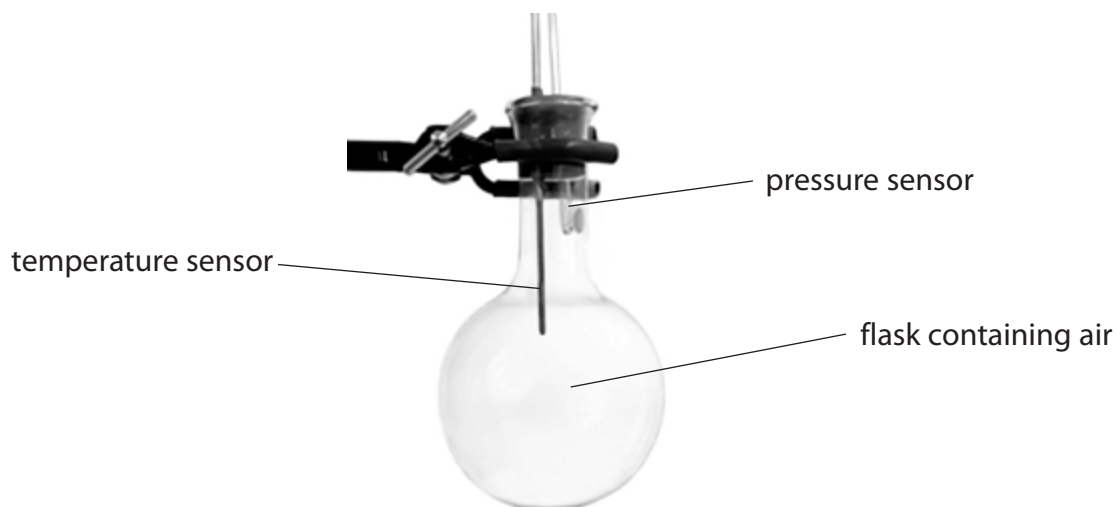


- 7 A student uses a pressure sensor to measure the pressure of air in a sealed flask.



- (a) The pressure sensor measures pressure in pascals (Pa).

Which of these is equivalent to pascals (Pa)?

(1)

- ☐ A joules per metre (J/m)
- ☐ B joules per square metre (J/m<sup>2</sup>)
- ☐ C newtons per metre (N/m)
- ☐ D newtons per square metre (N/m<sup>2</sup>)

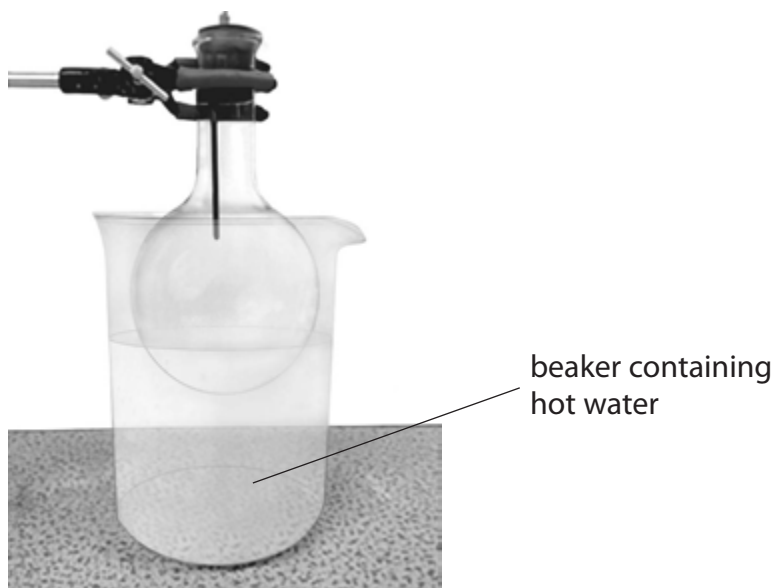
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(b) The student places the flask in a beaker containing hot water.



The pressure of the air in the flask increases.

Explain why the pressure of the air in the flask increases.

Use ideas about molecules in your answer.

(3)

(Total for Question 7 = 4 marks)

**TOTAL FOR PAPER = 60 MARKS**



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