

- 2 A student suggests that, when an ideal gas is heated from 100 °C to 200 °C, the internal energy of the gas is doubled.

- (a) (i) State what is meant by *internal energy*.

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[2]

- (ii) By reference to one of the assumptions of the kinetic theory of gases and your answer in (i), deduce what is meant by the internal energy of an ideal gas.

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[3]

- (b) State and explain whether the student's suggestion is correct.

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[2]