

Equations in physics

change in internal energy = mass \times specific heat capacity \times change in temperature

energy to cause a change in state = mass \times specific latent heat

for gases: pressure \times volume = constant

(for a given mass of gas and at a constant temperature)

(final speed)² – (initial speed)² = 2 \times acceleration \times distance

energy stored in a stretched spring = $\frac{1}{2}$ \times spring constant \times (extension)²

potential difference across primary coil \times current in primary coil =

potential difference across secondary coil \times current in secondary coil

Higher tier only –

pressure due to a column of liquid = height of column \times density of liquid \times g

force = magnetic flux density \times current \times length of conductor

**potential difference across primary coil \div potential difference across secondary coil =
number of turns in primary coil \div number of turns in secondary coil**

change in momentum = resultant force \times time for which it acts

OCR

Oxford Cambridge and RSA

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.