Paper Reference(s) 4PH1/2P Pearson Edexcel International GCSE (9–1)

Physics Paper: 2P

Formulae Booklet

DO NOT RETURN THIS FORMULAE BOOKLET WITH THE QUESTION PAPER.

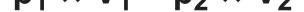


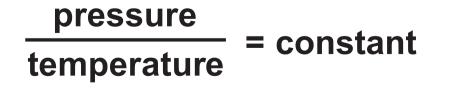
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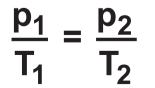
You may find the following formulae useful.

energy transferred = current × voltage × time E = I × V × t

frequency =
$$\frac{1}{\text{time period}}$$
 $f = \frac{1}{T}$ power = $\frac{\text{work done}}{\text{time taken}}$ $P = \frac{W}{t}$ power = $\frac{\text{energy transferred}}{\text{time taken}}$ $P = \frac{W}{t}$ orbital speed = $\frac{2\pi \times \text{orbital radius}}{\text{time period}}$ $v = \frac{2 \times \pi \times r}{T}$ (final speed)² = (initial speed)² + (2 \times acceleration \times distance moved) $v^2 = u^2 + (2 \times a \times s)$ pressure \times volume = constant $p_1 \times V_1 = p_2 \times V_2$







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force =
$$\frac{\text{change in momentum}}{\text{time taken}}$$
 F = $\frac{(\text{mv} - \text{mu})}{\text{t}}$

 $\frac{\text{change of wavelength}}{\text{wavelength}} = \frac{\text{velocity of a galaxy}}{\text{speed of light}}$ $\frac{\lambda - \lambda_0}{\lambda_0} = \frac{\Delta \lambda}{\lambda_0} = \frac{v}{c}$

change in thermal energy = mass × specific heat capacity × change in temperature

 $\Delta Q = m \times c \times \Delta T$

Where necessary, assume the acceleration of free fall, $g = 10 \text{ m/s}^2$.