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| Exam | Word equation | Symbol equation | SI unit |
| Paper 1 | kinetic energy = 0.5 × mass × (speed)2 | *Ek = ½ m v2* | Kinetic energy = joules (J)  Mass = kilograms (kg)  Speed = metres per second (m/s) |
| Paper 1 | gravitational potential energy =  mass × gravitational field strength × height | *Ep = m g h* | GPE = joules (J)  Mass = kilograms (kg)  g = newtons per kilogram (N/kg)  Height = metres (m) |
| Paper 1 | power = energy transferred  time | *P = E/t* | Power = watts (W)  Energy = joules (J)  Time = seconds (s) |
| Paper 1 | power = work done  time | *P = W/t* | Power = watts (W)  Work done = joules (J)  Time = seconds (s) |
| Paper 1 | efficiency = useful output energy transfer  total input energy transfer |  |  |
| Paper 1 | efficiency = useful power output  total power input |  |  |
| Paper 1 | charge flow = current × time | *Q = I t* | Charge flow = coulombs (C)  Current = amperes (A)  Time = seconds (s) |
| Paper 1 | potential difference = current × resistance | *V = I R* | Potential difference = volts (V)  Current = amperes (A)  Resistance = ohms (Ω) |
| Paper 1 | power = potential difference × current | *P = V I* | Power = watts (W)  Potential difference = volts (V)  Current = amperes (A) |
| Paper 1 | power = (current)2 × resistance | *P = I2 R* | Power = watts (W)  Current = amperes (A)  Resistance = ohms (Ω) |
| Paper 1 | energy transferred = power × time | *E = P t* | Energy = joules (J)  Power = watts (W)  Time = seconds (s) |
| Paper 1 | energy transferred = charge flow × potential difference | *E = Q V* | Energy = joules (J)  Charge flow = coulombs (C)  Potential difference = volts (V) |
| Paper 1 | density = mass  volume | *ρ = m / V* | Density = kilograms per metre cubed (kg/m3)  Mass = kilograms (kg)  Volume = metres cubed (m3) |
| Paper 2 | weight = mass × gravitational field strength (g) | *W = m g* | Weight = newtons (N)  Mass = kilograms (kg)  g = newtons per kilogram (N/kg) |
| Paper 2 | work done = force × distance (along the line of action of the force) | *W = F s* | Work done = joules (J)  Force = newtons (N)  Distance = metres (m) |
| Paper 2 | force applied to a spring = spring constant × extension | *F = k e* | Force = newtons (N)  Spring constant = newtons per metre (N/m)  Extension = metres (m) |
| **Paper 2**  **TRIPLE ONLY** | **moment of a force = force × distance (normal to direction of force)** | ***M = F d*** | **Moment = newton-metres (Nm)**  **Force = newtons (N)**  **Distance = metres (m)** |
| **Paper 2**  **TRIPLE ONLY** | **pressure = force normal to a surface**  **area of that surface** | ***p = F/A*** | **Pressure = pascals (Pa)**  **Force = newtons (N)**  **Area = metres squared (m2)** |
| Paper 2 | distance travelled = speed × time | *s = v t* | Distance = metres (m)  Speed = metres per second (m/s)  Time = seconds (s) |
| Paper 2 | acceleration = change in velocity  time taken | *a = ∆v/t* | Acceleration = metres per second squared (m/s2)  Velocity = metres per second (m/s)  Time = seconds (s) |
| Paper 2 | resultant force = mass × acceleration | *F = m a* | Force = newtons (N)  Mass = kilograms (kg)  Acceleration = metres per second squared (m/s2) |
| Paper 2 - (HT) | momentum = mass × velocity | *p = m v* | Momentum = kilogram metres per second (kg m/s)  Mass = kilograms (kg)  Velocity = metres per second (m/s) |
| Paper 2 | wave speed = frequency × wavelength | *v = f λ* | Wave speed = metres per second (m/s)  Frequency = hertz (Hz)  Wavelength = metres (m) |