AQA GCSE 9-1 Physics Equations to Learn

Paper One – 23rd May 2018

1	P1	work done = force x distance	$W = F\,s$
2	P1	kinetic energy = 0.5 x mass x (speed)^2	$E_k = \tfrac{1}{2}\,m\,v^2$
3	P1	gravitational potential energy = mass x gravity x height	$E_p = m\,g\,h$
4	P1	power = work done / time = energy / time	$P = W / t$
5	P1	efficiency = useful output / input	$Eff = Out / In$
6	P4	charge = current x time	$Q = I\,t$
7	P4	potential difference = current x resistance	$V = I\,R$
8	P5	power = potential difference x current	$P = V\,I$
9	P5	power = (current)^2 x resistance	$P = I^2\,R$
10	P5	energy transferred = charge flow x potential difference	$E = Q\,V$
11	P6	density = mass / volume	$\rho = m / V$

Paper Two – 15th June 2018

1	P8	moment = force x distance	$M = F\,d$
2	P9	distance = speed x time	$s = v\,t$
3	P9	acceleration = change in velocity / time taken	$a = \Delta v / t$
4	P10	weight = mass x gravity	$W = m\,g$
5	P10	force = spring constant x extension	$F = k\,e$
6	P10	force = mass x acceleration	$F = m\,a$
7	P10	momentum = mass x velocity	$p = m\,v$
8	P11	pressure = force / area	$p = F/A$
9	P13	wave speed = frequency x wavelength	$v = f\,\lambda$

If $A = B\,C$ then $B = A / C$ and $C = A / B$