

SPM Physics Formula List for Paper 2

1. $a = \frac{v-u}{t}$
2. $v^2 = u^2 + 2as$
3. $s = ut + \frac{1}{2}at^2$
4. Momentum = mv
5. $F = ma$
6. Kinetic Energy = $\frac{1}{2}mv^2$
7. Gravitational Potential energy = mgh
8. Elastic Potential Energy = $\frac{1}{2}mv^2$
9. Power, $P = \frac{\text{energy}}{\text{time}}$
10. $\rho = \frac{m}{V}$
11. Pressure, $P = \frac{F}{A}$
12. Pressure, $P = h\rho g$
13. Heat, $Q = mc\theta$
14. Heat, $Q = ml$
15. $P_1V_1 = P_2V_2$
16. $\frac{V_1}{T_1} = \frac{V_2}{T_2}$
17. $\frac{P_1}{T_1} = \frac{P_2}{T_2}$
18. $\frac{PV}{T} = \text{constant}$
19. $n = \frac{\sin i}{\sin r}$
20. $n = \frac{\text{real depth}}{\text{apparent depth}}$
21. $\frac{1}{f} = \frac{1}{u} + \frac{1}{v}$
22. Linear magnification, $m = \frac{v}{u}$
23. $P = \frac{1}{f}$
24. $v = f\lambda$
25. $\lambda = \frac{ax}{D}$
26. $Q = It$
27. $E = VQ$
28. $V = IR$
29. $E = V + Ir$
30. Power, $P = IV$
31. $I_{rms} = \frac{I_{peak}}{\sqrt{2}}$
32. $V_{rms} = \frac{V_{peak}}{\sqrt{2}}$
33. $\frac{N_s}{N_p} = \frac{V_s}{V_p}$
34. Efficiency = $\frac{I_s V_s}{I_p V_p} \times 100\%$
35. $eV = \frac{1}{2}mv^2$
36. $E = mc^2$
37. $g = 10ms^{-2}$