***Physics notes:***

***Paper 1 - Equations:***

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| 1 | **work done = force x distance** | W = F s |
| 2 | **kinetic energy = 0.5 x mass x (speed)2** | Ek = ½ m v2 |
| 3 | **gravitational potential energy = mass x gravity x height** | Ep = m g h |
| 4 | **power = work done / time = energy / time** | P = W / t |
| 5 | **efficiency = useful output / input** | Eff = Out / In |
| 6 | **charge = current x time** | Q = I t |
| 7 | **potential difference = current x resistance** | V = I R |
| 8 | **power = potential difference x current** | P = V I |
| 9 | **power = (current)2 x resistance** | P = I2 R |
| 10 | **energy transferred = charge flow x potential difference** | E = Q V |
| 11 | **density = mass / volume** |  = m / V |