



Coaching in:

PHYSICS & CHEMISTRY SCIENCE

yrs 11 – 12 yrs 7 – 10

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	ENERGY & POWER PRACTICE CALCULATION QUESTIONS
	1) Calculate the electric power used by the following:
	a) A 2400 traster that draws 1.5 A of airrent
	b) A 2400 heater that draws \$3A
	C) A radio that news on 6V and draws 150 mA of current
	(2) How much energy (in joules) would a loow light bulb consume in one day?
	3 If it takes 350KJ of energy to boil 1L of water, how
	(3) If it takes 350 KJ of energy to boil 1L of water, how long will it take a 5 km kettle to boil this much water?
-	@ what is the rosistance of a 240v television if it uses 75w of power?
	6) The voltage drop across a resistor is 2.0×10° v. The airent
	passing through the resistor is SA. what is the rate of energy aissipation?
	6 Calculate power given that 2.0A passes through a 0.25.52 resistor
	(2) Calculate power if the voltage drop across a 50 resistor is 1.0 × 102 v.
	(8) The resistors $(R_1 = 2.2 \text{ and } R_2 = 3.2)$ are connected in series
	(8) The resistors (R,=20 and R=30) are connected in series to a 1.0 × 102 v power supply, what is the power generated by the power supply and the rate of energy dissipation in each resistor? (thint: draw the circuit)
	dissepation in each resistor? (+lint: draw the circuit)
	9) Two resistors (R, = 4se and R, = 3.2) are connected in
	parallel to a 12 v power supply what is the power generated by the power supply and the power dissipated in leach resistor? (Hint: draw the circuit).
	by the power supply and the power dissipated in
	I each resistor? (Hint: draw the circuit).
	(10) How much energy does a: (answer in KWh).
_	a) 3kw heater use in 6 hours!
	(10) Hor much energy does a: (answer in KWh).  a) 3kw heater use in 6 hours?  b) 100W light bulb use in 8 hours?