

1. $P \propto \frac{1}{R}$ $R_2 = 48 \Omega = 2 \times 100 \Omega$

50W

2. 144 ohm.

3:7 $\frac{12P}{V} = \frac{1^2 / 500}{2850} \Rightarrow 6A$

ii) $T = 50h$
 $E = p \times t = 75kWh$

iii) $420 \times 75 = 315$