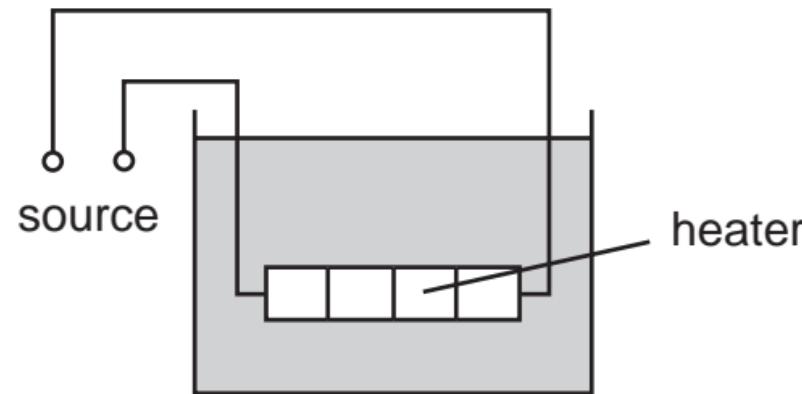


34 The diagram shows a low-voltage circuit for heating the water in a fish tank.



The heater has a resistance of $3.0\ \Omega$. The voltage source has an e.m.f. of 12 V and an internal resistance of $1.0\ \Omega$.

At what rate does the voltage source supply energy to the heater?

A 27 W

B 36 W

C 48 W

D 64 W

35 The diagram shows an arrangement of resistors.