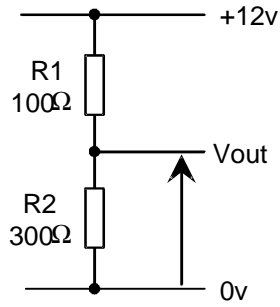


POTENTIAL DIVIDERS

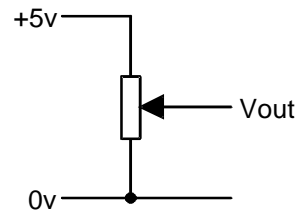
Qu. 1. Using the following formula, calculate the voltage in the potential divider at the point 'Vout.'

$$V_{out} = V \times \frac{R_2}{R_1 + R_2}$$

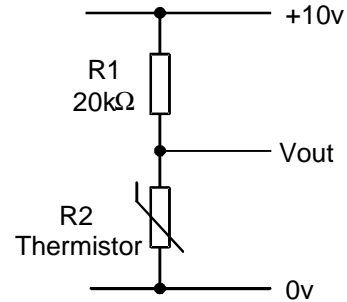


Qu. 2. The variable resistor shown in the diagram is set at exactly half way.

What is the voltage present at Vout?

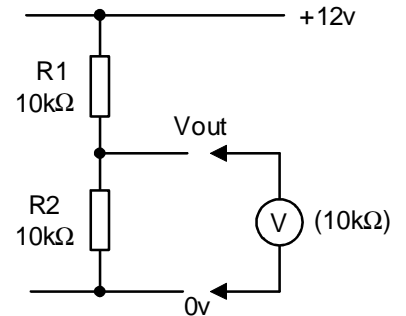
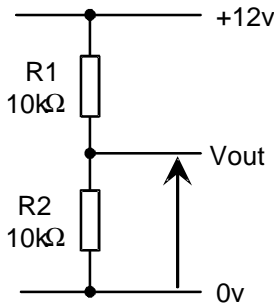


Qu. 3. The following thermistor has a resistance of 30kohms at 20°C. What would be the output voltage at Vout with a temperature of 20°C?

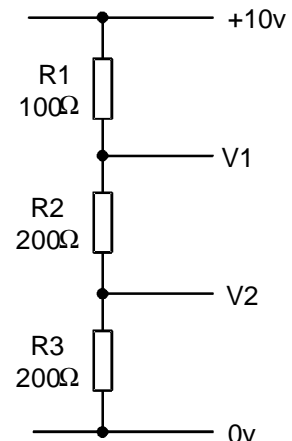


Qu. 4. The following potential divider has been connected to produce a voltage at Vout of 6 volts.

A voltmeter with a resistance of 10kohms is connected between Vout and 0v. What will be the reading on the meter and why?



Qu. 5. What are the voltages present at V1 and V2?



Answers to WS1.2

Q1/ 9 volts

Q2/ 2.5 volts

Q3/ 6 volts

Q4/ 4 volts, because the meter will act as a resistor and combined with R2, would give a total resistance of 5 Kohms, instead of 10 Kohms.

Q5/ V1 = 8 volts
V2 = 4 volts