

Potential Dividers

When 2 Resistors are connected one above the other like this they are called a **Potential Divider**.

$V_s = 6V$

R_1

R_2

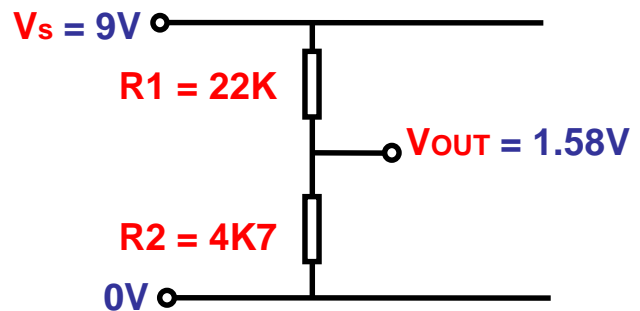
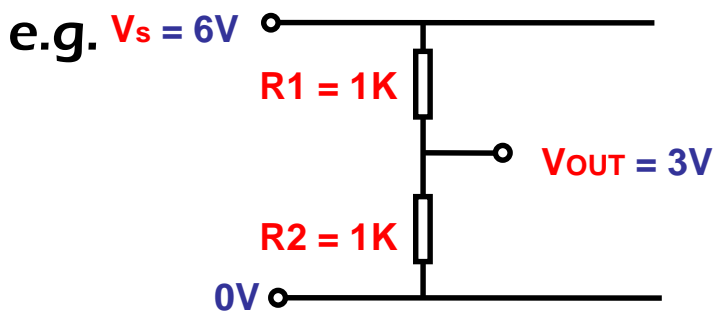
V_{OUT} = Signal Voltage (The output of a potential Divider)

Remember R_1 and R_2 can be ANY type of resistor and it is still a Potential Divider!

e.g. LDR,
Potentiometer,
Thermistor etc

0V

Each resistor *reduces the voltage* a bit so the *supply voltage gets "divided"* between the 2 resistors depending on their value.



The **signal voltage** can be calculated using this formula...

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

But **USE YOUR COMMON SENSE** to check your answer!