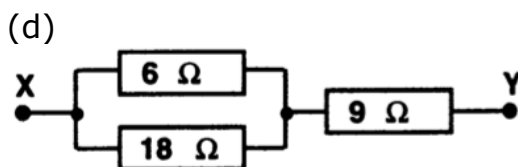
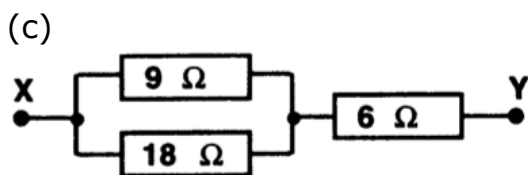
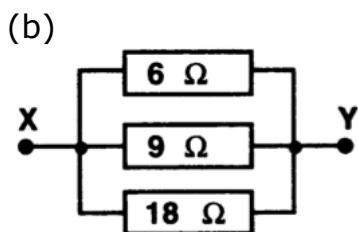
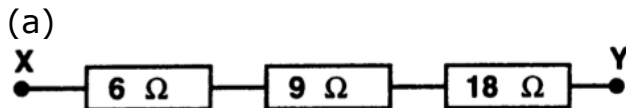


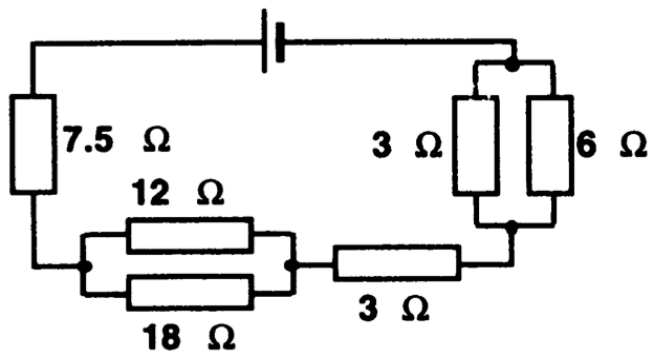
S3 Resistance Homework

Answer these questions in your homework jotter, **showing full working**.

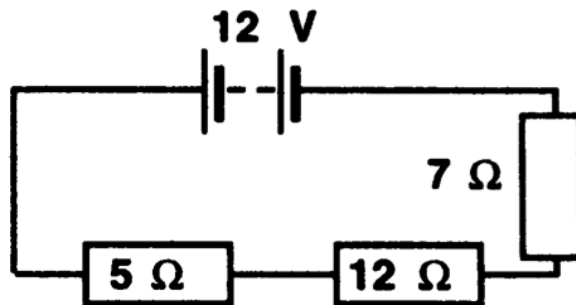
1. The same three resistors are connected in different ways, as shown. Calculate the total resistance between points X and Y for each arrangement of resistors.



2. Calculate the total resistance in the circuit shown below.



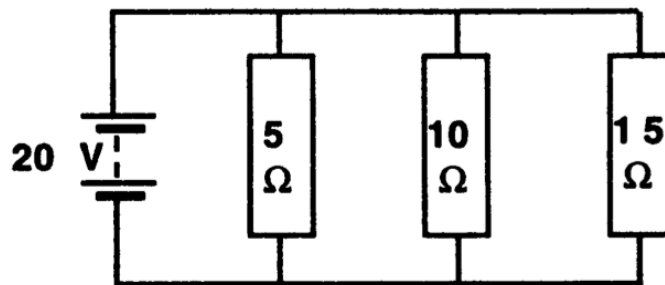
3. A pupil builds the series circuit shown below.



Calculate:

- The total resistance in this circuit.
- The current flowing through the 12Ω resistor.
- The current flowing through the 7Ω resistor.
- The voltage across each resistor in the circuit.

4. A second pupil decides to build this parallel circuit.



Find

- The total resistance in this circuit.
- The voltage across each of the resistors.
- The current flowing through each resistor.
- The total current supplied by the power supply.

Hand in your jotter no later than Monday 17th December.