## All questions are for separate science students only

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This question is about chemical cells.

(a) A student connects four 1.5 V cells in series to make a battery.

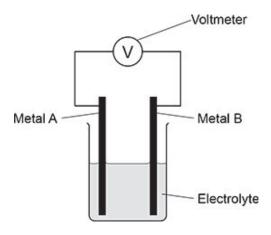
What is the total voltage produced by the battery? (chemistry only)

Voltage = \_\_\_\_\_V

(1)

A chemical cell can be made using two different metals in contact with an electrolyte.

The figure below shows a chemical cell.



(b) Which is a suitable electrolyte for a chemical cell? (chemistry only)

Tick (✓) one box.

Pure water	
Solid lead bromide	
Sodium chloride solution	

(1)

A student made the hypothesis:
'The voltage produced by a cell depends on the difference in the reactivity of metal <b>A</b> and metal <b>B</b> .'
Plan an investigation to test this hypothesis. (chemistry only)
Your plan should produce valid results.
Use the above figure.
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(6) (Total 8 marks)