

GCSE Chemistry B (Twenty First Century Science)
J258/01 Breadth in Chemistry (Foundation Tier)

Question Set 4

1

Amir investigates the halogens.

Table 1.1 shows some information about the halogens.

(a) Complete **Table 1.1** by filling in the missing information.

| | Chlorine | Bromine | Iodine |
|--|------------------|----------------|---------------|
| Appearance and state at room temperature and pressure | yellow-green gas | | grey solid |
| Colour as a gas | yellow-green | red-brown | |
| Product when reacted with sodium | | NaBr | NaI |

Table 1.1

(b) Amir reacts some chlorine solution with a solution of potassium bromide.

[3]

The solution turns brown.

(i) Complete **word** and **chemical** equations for the reaction that happens.

chlorine + potassium bromide → + bromine

Cl_2 + 2 → $2KCl$ + Br_2

[2]

(ii) Use the equations in (b)(i) to explain why the solution turns brown.

[1]

Total Marks for Question Set 4: 6

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