**SUBSTANCE A YOUR NAME: .**

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| **Colour** | **Inferences** |
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| **Possible cations** | **Possible anions** |
| barium | carbonate |
| chromium(III) | chloride |
| copper(II) | hydroxide |
| iron(II) | iodide |
| lead(II) | nitrate |
| magnesium | phosphate |
| nickel(II) | sulfate |
| potassium |  |
| sodium |  |
| strontium |  |

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| **Flame test** | **Inferences** |
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| **Reaction with HCl** | **Inferences** |
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| **Precipitation reactions** | | |
| **Solution added** | **Observations** | **Inferences** |
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Correct conclusion: \_\_\_ / 2

Logic and working: \_\_\_ / 2

**Conclusion: Substance A is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SUBSTANCE B**

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| **Colour** | **Inferences** |
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| **Possible cations** | **Possible anions** |
| barium | carbonate |
| chromium(III) | chloride |
| copper(II) | hydroxide |
| iron(II) | iodide |
| lead(II) | nitrate |
| magnesium | phosphate |
| nickel(II) | sulfate |
| potassium |  |
| sodium |  |
| strontium |  |

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| **Flame test** | **Inferences** |
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| **Reaction with HCl** | **Inferences** |
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| **Precipitation reactions** | | |
| **Solution added** | **Observations** | **Inferences** |
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Correct conclusion: \_\_\_ / 2

Logic and working: \_\_\_ / 2

**Conclusion: Substance B is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SUBSTANCE C**

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| **Colour** | **Inferences** |
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| **Possible cations** | **Possible anions** |
| barium | carbonate |
| chromium(III) | chloride |
| copper(II) | hydroxide |
| iron(II) | iodide |
| lead(II) | nitrate |
| magnesium | phosphate |
| nickel(II) | sulfate |
| potassium |  |
| sodium |  |
| strontium |  |

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| **Flame test** | **Inferences** |
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| **Reaction with HCl** | **Inferences** |
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| **Precipitation reactions** | | |
| **Solution added** | **Observations** | **Inferences** |
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Correct conclusion: \_\_\_ / 2

Logic and working: \_\_\_ / 2

**Conclusion: Substance C is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SUBSTANCE D**

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| **Colour** | **Inferences** |
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| **Possible cations** | **Possible anions** |
| barium | carbonate |
| chromium(III) | chloride |
| copper(II) | hydroxide |
| iron(II) | iodide |
| lead(II) | nitrate |
| magnesium | phosphate |
| nickel(II) | sulfate |
| potassium |  |
| sodium |  |
| strontium |  |

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| **Flame test** | **Inferences** |
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| **Reaction with HCl** | **Inferences** |
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| **Precipitation reactions** | | |
| **Solution added** | **Observations** | **Inferences** |
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Correct conclusion: \_\_\_ / 2

Logic and working: \_\_\_ / 2

**Conclusion: Substance D is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SUBSTANCE E YOUR NAME: .**

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| **Colour** | **Inferences** |
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| **Possible cations** | **Possible anions** |
| barium | carbonate |
| chromium(III) | chloride |
| copper(II) | hydroxide |
| iron(II) | iodide |
| lead(II) | nitrate |
| magnesium | phosphate |
| nickel(II) | sulfate |
| potassium |  |
| sodium |  |
| strontium |  |

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| **Flame test** | **Inferences** |
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| **Reaction with HCl** | **Inferences** |
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| **Precipitation reactions** | | |
| **Solution added** | **Observations** | **Inferences** |
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Correct conclusion: \_\_\_ / 2

Logic and working: \_\_\_ / 2

**Conclusion: Substance E is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SUBSTANCE F**

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| **Colour** | **Inferences** |
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| **Possible cations** | **Possible anions** |
| barium | carbonate |
| chromium(III) | chloride |
| copper(II) | hydroxide |
| iron(II) | iodide |
| lead(II) | nitrate |
| magnesium | phosphate |
| nickel(II) | sulfate |
| potassium |  |
| sodium |  |
| strontium |  |

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| **Flame test** | **Inferences** |
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| **Reaction with HCl** | **Inferences** |
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| **Precipitation reactions** | | |
| **Solution added** | **Observations** | **Inferences** |
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Correct conclusion: \_\_\_ / 2

Logic and working: \_\_\_ / 2

**Conclusion: Substance F is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SUBSTANCE G**

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| **Colour** | **Inferences** |
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| **Possible cations** | **Possible anions** |
| barium | carbonate |
| chromium(III) | chloride |
| copper(II) | hydroxide |
| iron(II) | iodide |
| lead(II) | nitrate |
| magnesium | phosphate |
| nickel(II) | sulfate |
| potassium |  |
| sodium |  |
| strontium |  |

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| **Flame test** | **Inferences** |
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| **Reaction with HCl** | **Inferences** |
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| **Precipitation reactions** | | |
| **Solution added** | **Observations** | **Inferences** |
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Correct conclusion: \_\_\_ / 2

Logic and working: \_\_\_ / 2

**Conclusion: Substance G is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SUBSTANCE H**

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| **Colour** | **Inferences** |
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| --- | --- |
| **Possible cations** | **Possible anions** |
| barium | carbonate |
| chromium(III) | chloride |
| copper(II) | hydroxide |
| iron(II) | iodide |
| lead(II) | nitrate |
| magnesium | phosphate |
| nickel(II) | sulfate |
| potassium |  |
| sodium |  |
| strontium |  |

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| **Flame test** | **Inferences** |
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| **Reaction with HCl** | **Inferences** |
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| **Precipitation reactions** | | |
| **Solution added** | **Observations** | **Inferences** |
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Correct conclusion: \_\_\_ / 2

Logic and working: \_\_\_ / 2

**Conclusion: Substance H is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**