

### 16 Pre-Lab Study Questions

Date	4/3/2020	Name	Norbi Lager
Section	Chemistry Lab	Team	—
Instructor	Dr. Washington		—

1. How can the presence of an ion in a solution be detected?
2. What tests would you use to identify a solution of  $\text{Ag}_3\text{PO}_4$ ?
3. What tests would you use to identify a solution of  $\text{FeCl}_3$ ?
4. A flame test of a colorless solution gives a bright yellow color. When reacted with  $\text{AgNO}_3$  a white precipitate forms that dissolves when  $\text{HNO}_3$  is added. When  $\text{HCl}$  is added to the unknown solution, bubbles form. What is the compound in the colorless solution?

1) Ions can be detected by Flame tests

2) Test for the anion. The anion. the anion present in the solution is phosphate ion  $\text{PO}_4^{3-}$ . Testing for Negative ions (anions)

3) Its nothing but testing for both the cation and anion.

4) The compound in the colorless solution is Sodium Carbonate  $\text{Na}_2\text{CO}_3$

Lab 16 Report Sheet Testing for Cations and Anions

Date	4/3/2020	Name	Norbi. Lopez
Section	Chemistry Lab	Team	---
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1. Unknown solution number \_\_\_\_\_

A. Flame Tests for  $K^+$ ,  $Ca^{2+}$ , and  $Na^+$  ions

Cation Tested	Color produced
2. $K^+$	Lilac Purple
3. $Ca^{2+}$	Orange-red
4. $Na^+$	Yellow
5. Unknown $Fe^{3+}$	Dark Red

6. From your test results, does your unknown contain  $K^+$ ,  $Ca^{2+}$ , or  $Na^+$ , or none of these?

No

Explain your choice.