Lab Instructor:	Name:	
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Part 1 – Flame Tests

Positive ion tested	Color of flame
K^{+}	
<u> </u>	
Ba ²⁺	
2	
Ca ²⁺	
21	
Cu ²⁺	
21	
Sr ²⁺	
Na ⁺	

Test solution	Color of flame	Which positive ion is present?
Purified water		
Tap water		
Saliva		
Urine (optional!)		
A raisin		
Pink liquid soap		
Unknown number:		

Part 2 – Spectroscopic Examination

Use crayons to record the spectrum that you see in each case.

Daylight or a regular light bulb		

Hydrogen
Moreover
Mercury
Helium
Questions
(Note: to answer these questions, refer to your textbook and your lecture notes.)
1. What <u>causes</u> light to be emitted from an atom?
2. Why are only <u>certain</u> wavelengths emitted from an atom? (In other words, why do the
spectra show lines of light instead of a continuous rainbow of light?)
3. Why does hydrogen emit <u>different</u> wavelengths of light than mercury?