

Σεχρετ Αγενοτ

Pre-Lab Assignment -25pts

Directions:

- Read entire lab before you begin Pre-Lab assignment
- **No teacher approval data table need for this lab**

Complete the pre-lab in your lab notebook

Title of lab and unit (Periodic Table)

- Definitions: “Define” the following terms: group, periods, electron cloud,
- Read through entire the lab and list the “key points” as related to data collecting
- Purpose: In a sentence, write the purpose of the lab.
- Procedure: In a numbered list write what you will be doing.
- Preliminary Questions: Write and answer the preliminary question.
- Create as data table (in your your lab notebook) based on the data you are collecting .
- Have your teacher initial your pre-lab before you begin the lab.

Preliminary question: Answer the following in complete sentences in your lab notebook

1. You are given 8 baseball cards from a series of 10. The cards of the series have been selected according to patterns in specific player information on the cards. You are asked to predict where exactly the remaining 2 cards fit into the series. Rather, “How would you go about doing this given the actual cards?”

Lab Mission

My name is SAL, Agent SAL of the WIA. As an agent in training (AIT), you have been selected for a

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top-secret training mission. Your mission, should you choose to accept it (and you should or your payment will self destruct), is to work with the sketches of the suspicious characters provided with this memo. They are members of the ultimate secret agent organization A.U.N.T., but the most elusive two agents have never been observed. The members of A.U.N.T. have only been observed in disguises which follow specific patterns. They use the disguises in order to identify other A.U.N.T. members and detect imposters. You will need to arrange the sketches and discover the patterns in their disguises. Remember that you do not have a sketch for two of them, but they are still part of the pattern.

Clue One - There are many ways to begin your arrangement. You could try grouping the agents using ways in which they are alike; OR, you might begin by sequencing the pictures. Here's an example:

You are given 40 slips of paper with a number from 0 to 39 written on them. You could put them in one long row by sequencing them. That is, each number would be one more than the last. Once you had them in one long row, you could then 'break' the sequence to create columns without changing the order. Your new arrangement would look like this:

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0  1  2  3  4  5  6  7  8  9
10 11 12 13 14 15 16 17 18 19
20 21 22 23 24   26 27 28 29
30 31 32 33 34 35 36 37 38 39
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Notice that each row has something in common. The first row has all single digit numbers. The other rows all begin with the same number. Each column ends with the same digit. If one of the numbers is missing, you can easily figure out which one it is by looking at the row and column it is in. The missing number must begin with a 2 and end with a 5.

But how can you 'sequence' things that aren't numbers? Notice that you can identify certain 'properties' or 'characteristics' on each picture. They have hair, tattoos, fingers, arms, facial expressions, and bodies.

Clue two - each 'secret agent' is different from every other in two of the characteristics. In other words, no two pictures have exactly the same 'amount' or kind of these two properties. If you find these two, you can sequence the pictures based on one of them because the properties change in some regular way. WARNING: one will give you the best results, so choose wisely.

If done correctly, you should have a specific number of rows and a specific number of columns. The rows and columns do not necessarily have the same number of pieces in each. Your arrangement should represent patterns for each characteristic in both columns and rows.

Good luck, we're all counting on you. If you get stuck, the WIA may disavow any knowledge of your actions.

When you have the final arrangement you will need to completely explain it to Agent SAM. Agent SAM will provide you with further instructions at this time.

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Mission 1 Analysis

A. Answer the following questions in your training notebook:

1. In what TWO ways are all the secret agents unique? Which did you use to sequence the agents, or did you?
2. Once organized, how are each of the agents' characteristic(s) related when in a row?
3. Once organized, how are each of the agents' characteristic(s) related when in a column?
4. Draw the two missing agents.

B. As a group:

1. draw in the missing agents on the two blank squares you have and place them in the proper locations in your arrangement.
2. Attach your arrangement to the final paper according to Agent SAM's instructions.

Speak with Agent SAM at this point.

Individual Report: (25pt) see teacher for details