Virgil and Alex wants to record the dining hall where they eat lunch everyday. There are 4 dining halls on campus: East Quad (E), South Quad (S), West Quad (W), and North Quad (N).
Note: The following questions only have 1 correct answer, and we want to minimize the resources used for recording.

1. Assume Virgil and Alex always eats together (This assumption is only valid for this question). If they want to record whether or not they have taken meal in these dining halls, which data structure should they use?
A. Itemset
B. Vector
C. Matrix
D. Sequence
E. Multiple Sequences
Answer: A. Itemset is enough to record binary status. In this case, if an item is in the itemset, then they have taken meal there, and vice versa.

2. If they want to record how frequently they eat lunch in these dining halls separately, which data structure should they use?
A. Itemset
B. Vector
C. Matrix
D. Sequence
E. Multiple Sequences
Answer: C. Itemset could not count repeated occurrence, and a vector cannot show Virgil and Alex's records separately. So, we should construct a matrix where dining halls are dimensions, rows are Virgil and Alex, and cells represent how many times a person eats at a dining hall.

3. If they want to keep track of the order of dining halls where they eat over semester, which data structure should they use?
A. Itemset
B. Vector
C. Matrix
D. Sequence
E. Multiple Sequences
Answer: E. Sequence/Multiple Sequences are the only data structures among the choices that could record ordered data. Since there are two people who may not take every lunch together, we should construct individual sequences for them each. So the answer is Multiple Sequences.