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Problem 3

1. For this problem I would use a List because a list is mutable and based on the context given we are not sure of how many entries will be received making the total amount of names in the structure possibly different every time. Also, we are receiving entries one by one, in which case it would be more efficient to add new values to a list rather than using tuples because it would take more memory to create new tuples with the new entries added.
2. For this problem I would use a range that starts on 1 and ends on n to iterate through a for loop. Range is good because we need to know how many numbers of the fibonacci sequence need to be generated. Then I would store the integers of the fibonacci sequence in a list to then return it or print it (whichever the “word” generate is referring to) a list is good because it will be more efficient to add new values to one list than creating new tuples with the updated values.
3. For this problem I would use tuples because we know that we are always receiving coordinates that get stored in 3 values (2D coordinates are still considered as 3D but $z = 0$). The reason is because in this case we don’t want to change the values we received, just use them to compute the distance, and tuples are more efficient than lists.