1. Create a list called years\_list, starting with the year of your birth, and each year thereafter until the year of your fifth birthday. For example, if you were born in 1980. the list would be years\_list = [1980, 1981, 1982, 1983, 1984, 1985].

Ans1

years\_list = [1990, 1991, 1992, 1993, 1994, 1995]

2. In which year in years\_list was your third birthday? Remember, you were 0 years of age for your first year.

Ans2

year\_of\_third\_birthday = years\_list[3]

3.In the years list, which year were you the oldest?

Ans3

birth\_year = 1990

years\_list = [birth\_year, birth\_year+1, birth\_year+2, birth\_year+3, birth\_year+4, birth\_year+5]

oldest\_year = years\_list[-1]

print("The year in which I was the oldest was:", oldest\_year)

output 1995

4. Make a list called things with these three strings as elements: "mozzarella", "cinderella", "salmonella".

Ans4

things = ["mozzarella", "cinderella", "salmonella"]

5. Capitalize the element in things that refers to a person and then print the list. Did it change the element in the list?

Ans5

things = ["mozzarella", "cinderella", "salmonella"]

things[1] = things[1].capitalize()

print(things)

output ['mozzarella', 'Cinderella', 'salmonella']

6. Make a surprise list with the elements "Groucho," "Chico,"and "Harpo."

Ans6

surprise = ["Groucho", "Chico", "Harpo"]

7. Lowercase the last element of the surprise list, reverse it, and then capitalize it.

Ans7

surprise = ["Groucho", "Chico", "Harpo"]

last\_element = surprise[-1]

last\_element = last\_element.lower()[::-1].capitalize()

surprise[-1] = last\_element

print(surprise)

output ['Groucho', 'Chico', 'Oprah']

8. Make an English-to-French dictionary called e2f and print it. Here are your starter words: dog is chien, cat is chat, and walrus is morse.

Ans8

e2f = {'dog': 'chien', 'cat': 'chat', 'walrus': 'morse'}

print(e2f)

output {'dog': 'chien', 'cat': 'chat', 'walrus': 'morse'}

9. Write the French word for walrus in your three-word dictionary e2f.

Ans9

french\_word\_for\_walrus = e2f['walrus']

print(french\_word\_for\_walrus)

output morse

10. Make a French-to-English dictionary called f2e from e2f. Use the items method.

Ans10

e2f = {'dog': 'chien', 'cat': 'chat', 'walrus': 'morse'}

f2e = {french: english for english, french in e2f.items()}

print(f2e)

output {'chien': 'dog', 'chat': 'cat', 'morse': 'walrus'}

11. Print the English version of the French word chien using f2e.

Ans11

english\_word\_for\_chien = f2e['chien']

print(english\_word\_for\_chien)

output dog

12. Make and print a set of English words from the keys in e2f.

Ans12

e2f = {'dog': 'chien', 'cat': 'chat', 'walrus': 'morse'}

english\_words = set(e2f.keys())

print(english\_words)

output {'dog', 'cat', 'walrus'}

13. Make a multilevel dictionary called life. Use these strings for the topmost keys: 'animals', 'plants', and 'other'. Make the 'animals' key refer to another dictionary with the keys 'cats', 'octopi', and 'emus'. Make the 'cats' key refer to a list of strings with the values 'Henri', 'Grumpy', and 'Lucy'. Make all the other keys refer to empty dictionaries.

Ans13

life = {

'animals': {

'cats': ['Henri', 'Grumpy', 'Lucy'],

'octopi': {},

'emus': {}

},

'plants': {

'flowers': {},

'trees': {}

},

'other': {}

}

print(life)

output

{

'animals': {'cats': ['Henri', 'Grumpy', 'Lucy'], 'octopi': {}, 'emus': {}},

'plants': {'flowers': {}, 'trees': {}},

'other': {}

}

14. Print the top-level keys of life.

Ans14

life = {

'animals': {

'cats': ['Henri', 'Grumpy', 'Lucy'],

'dogs': ['Clifford', 'Lassie', 'Snoopy']

},

'plants': {

'flowers': ['roses', 'tulips', 'lilies'],

'trees': ['oak', 'maple', 'birch']

}

}

top\_level\_keys = life.keys()

print(top\_level\_keys)

output dict\_keys(['animals', 'plants'])

15. Print the keys for life['animals'].

Ans15

life = {

'animals': {

'cats': ['Henri', 'Grumpy', 'Lucy'],

'dogs': ['Clifford', 'Lassie', 'Snoopy']

},

'plants': {

'flowers': ['roses', 'tulips', 'lilies'],

'trees': ['oak', 'maple', 'birch']

}

}

animal\_keys = life['animals'].keys()

print(animal\_keys)

life = {

'animals': {

'cats': ['Henri', 'Grumpy', 'Lucy'],

'dogs': ['Clifford', 'Lassie', 'Snoopy']

},

'plants': {

'flowers': ['roses', 'tulips', 'lilies'],

'trees': ['oak', 'maple', 'birch']

}

}

animal\_keys = life['animals'].keys()

print(animal\_keys)

output dict\_keys(['cats', 'dogs'])

16. Print the values for life['animals]['cats]'

Ans16

life = {

'animals': {

'cats': ['Henri', 'Grumpy', 'Lucy'],

'dogs': ['Clifford', 'Lassie', 'Snoopy']

},

'plants': {

'flowers': ['roses', 'tulips', 'lilies'],

'trees': ['oak', 'maple', 'birch']

}

}

cat\_values = life['animals']['cats']

print(cat\_values)

output ['Henri', 'Grumpy', 'Lucy']