

Question 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]`.

Answer 1:

```
years_list = [1996,1997,1998,1999,2000,2001]
```

Question 2.

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

Answer 2:

```
years_list[3]  
output: 1999
```

Question 3.

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

Answer 3:

```
years_list[-1]  
output: 2001
```

Question 4.

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

Answer 4:

```
things = ['mozzarella','cinderella','salmonella']  
things  
output: ['mozzarella', 'cinderella', 'salmonella']
```

Question 5.

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

Answer 5:

This capitalizes the word, but doesn't change it in the list:

```
things[1].capitalize()  
output: 'Cinderella'
```

Question 6.

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

Answer 6:

```
surprise = ['Groucho', 'Chico', 'Harpo']  
surprise  
output: ['Groucho', 'Chico', 'Harpo']
```

Question 7.

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

Answer 7:

```
surprise[-1] = surprise[-1].lower()
surprise[-1] = surprise[-1][::-1]
surprise[-1].capitalize()
```

output: 'Oprah'

Question 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.

Answer 8:

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

Question 9.

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

Answer 9:

```
e2f['walrus']
```

output: 'morse'

Question 10.

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

Answer 10:

```
f2e = {}
for english, french in e2f.items():
    f2e[french] = english
f2e
output: {'chien': 'dog', 'chat': 'cat', 'morse': 'walrus'}
```

Question 11.

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

Answer 11:

```
f2e['chien']
output: 'dog'
```

Question 12.

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

Answer 12:

```
set(e2f.keys())
```

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

Question 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.

Answer 13:

```
life = {'animals': {'cats': ['Henri', 'Grumpy', 'Lucy'], 'octopi': {}, 'emus': {}}, 'plants': {}, 'other': {}}
life
```

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

```
'plants': {},
'other': {}}
```

Question 14.

Print the top-level keys of life.

Answer 14:

```
print(life.keys())
```

```
output: dict_keys(['animals', 'plants', 'other'])
```

Question 15.

Print the keys for life['animals'].

Answer 15:

```
print(life['animals'].keys())
```

```
output: dict_keys(['cats', 'octopi', 'emus'])
```

Question 16.

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

Answer 16:

```
print(life['animals']['cats'])
```

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