

PYTHON ASSIGNMENT 16

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]`.

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

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

4. Make a list called `things` with these three strings as elements: `'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?

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

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

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.

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

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

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

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

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',

'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.

14. Print the top-level keys of life.

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

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

SOLUTIONS

```
# 1. Create a list called years_list
```

```
years_list = [year for year in range(1980, 1986)]
```

```
# 2. Year of third birthday
```

```
third_birthday_year = years_list[2]
```

```
# 3. Year when the oldest
```

```
oldest_year = max(years_list)
```

```
# 4. Make a list called things
```

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

5. Capitalize the element referring to a person

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

```
print(things) # Output: ['mozzarella', 'Cinderella', 'salmonella']
```

6. Make a surprise list

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

7. Transform and print the last element of the surprise list

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

```
print(surprise) # Output: ['Groucho', 'Chico', 'Oprah']
```

8. Make an English-to-French dictionary

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

```
print(e2f)
```

9. French word for walrus

```
french_word_for_walrus = e2f['walrus']
```

10. Make a French-to-English dictionary using the items method

```
f2e = {value: key for key, value in e2f.items()}
```

11. Print the English version of the French word 'chien'

```
english_word_for_chien = f2e['chien']
```

12. Set of English words from the keys in e2f

```
english_words_set = set(e2f.keys())
```

13. Make a multilevel dictionary called life

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

```
# 14. Print the top-level keys of life
```

```
top_level_keys = life.keys()
```

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

```
animals_keys = life['animals'].keys()
```

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

```
cats_values = life['animals']['cats']
```