

1. What does an empty dictionary's code look like?

```
{}
```

2. What is the value of a dictionary value with the key 'foo' and the value 42?

```
{'foo':42}
```

3. What is the most significant distinction between a dictionary and a list?

The most significant distinction between a dictionary and a list is that a dictionary is a collection of key-value pairs, while a list is an ordered collection of elements accessed by index.

4. What happens if you try to access spam['foo'] if spam is {'bar': 100}?

Will get a KeyError because the key 'foo' does not exist in the dictionary spam

5. If a dictionary is stored in spam, what is the difference between the expressions 'cat' in spam and 'cat' in spam.keys()?

'cat' in spam checks whether 'cat' exists in the dictionary spam, while 'cat' in spam.keys() explicitly checks for the existence of the key 'cat' in the keys of the dictionary spam.

6. If a dictionary is stored in spam, what is the difference between the expressions 'cat' in spam and 'cat' in spam.values()?

'cat' in spam checks whether 'cat' exists in the dictionary spam, while 'cat' in spam.values() explicitly checks for the existence of 'cat' in the values of the dictionary spam.

7. What is a shortcut for the following code?

```
if 'color' not in spam:
```

```
    spam['color'] = 'black'
```

The shortcut method would be ==> `spam.setdefault('color', 'black')`

8. How do you "pretty print" dictionary values using which module and function?

Using pprint module and pprint() function. It formats the dictionary output in a more readable and structured way.