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

dictionary = {}

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

my\_dict = {'foo': 42}

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

List:

Lists are mutable

A list is an ordered collection of items

Items in a list are accessed using an index, starting from 0

Dictionary:

Dictionaries are also mutable

A dictionary is an unordered collection of key-value pairs.

Items in a dictionary are accessed using their keys. Instead of using indices, you use keys to retrieve the corresponding values.

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

spam = {'bar': 100}

try:

print(spam['foo'])

except KeyError as e:

print(e)

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

There is no difference between the expressions 'cat' in spam and 'cat' in spam.keys(). Both expressions check whether the string 'cat' exists as a key in 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 if 'cat' is a key in the dictionary spam, while 'cat' in spam.values() checks if 'cat' is a value in the dictionary spam. The former searches for the key, while the latter searches for the value.

7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black'

Ans:

spam.setdefault('color', 'black')

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

import pprint

my\_dict = {'name': 'Alice', 'age': 25, 'country': 'USA'}

pprint.pprint(my\_dict)