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

Ans. An empty dictionary's code looks like this: {}.

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

Ans. The value of a dictionary value with the key 'foo' and the value 42 is 42.

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

Ans. The most significant distinction between a dictionary and a list is that a dictionary is an unordered collection of key-value pairs, while a list is an ordered collection of elements. In a dictionary, the elements are accessed by their unique keys, whereas in a list, the elements are accessed by their indices.

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

Ans. If you try to access spam['foo'] and spam is {'bar': 100}, it will raise a KeyError because the key 'foo' does not exist in the dictionary.

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

Ans. If a dictionary is stored in spam, the expression 'cat' in spam checks if the key 'cat' exists in the dictionary, while 'cat' in spam.keys() checks if 'cat' is one of the keys in the dictionary.

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

Ans. If a dictionary is stored in spam, the expression 'cat' in spam checks if the value 'cat' exists in any of the values in the dictionary, while 'cat' in spam.values() checks if 'cat' is one of the values in the dictionary.

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?

Ans. To "pretty print" dictionary values, you can use the pprint module's pprint() function. It provides a more readable and formatted output for dictionaries and other data structures.