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

An empty dictionary can be created by {} or using the dict() method.

d={} → Empty dict

d=dict() → Empty dict

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

d={'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 stores data in key-value pairs, while a list stores data in a sequential order. This means that you can access data in a dictionary using a key, while you can access data in a list using its index.

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

If you try to access spam['foo'] when spam is {'bar': 100}, you will get a KeyError exception. This is 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()?

The expressions 'cat' in spam and 'cat' in spam.keys() are both used to check if the key cat exists 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 for the key cat in spam dictionary where as 'cat' in spam.values() checks for the value cat in the values of spam dictionary.

7. What is a shortcut for the following code?

if 'color' not in spam:

spam['color'] = 'black

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

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

To "pretty print" dictionary values in Python, you can use the pprint() function from the pprint module. The pprint() function takes an object as input and returns a string representation of the object with appropriate indentation and line breaks.