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?

tmp = {'foo': 42}

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

The elements in a list are ordered, and the elements in a dictionary aren't.

Also, elements in a list must be accessed using numerical indices. Elements in a dictionary are indexed using keys, which can have different data types.

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

You will get a KeyError error.

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, the expression " 'cat' in spam " checks whether 'cat' is a key in 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 as a key in spam. 'cat' in spam.values() checks whether 'cat' is a value in spam.

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?

The module is pprint.

The functions are pprint.pprint() and pprint.pformat().