1. An empty dictionary's code looks like: {} or dict().

2. The value of a dictionary value with the key 'foo' and the value 42 would look like {'foo': 42}.

3. The most significant distinction between a dictionary and a list is that a dictionary stores values in key-value pairs while a list stores values in an ordered sequence.

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

5. If a dictionary is stored in spam, the expression 'cat' in spam checks if 'cat' is a key in the dictionary, while the expression 'cat' in spam.keys() returns a list of all the keys in spam and checks if 'cat' is in that list.

6. If a dictionary is stored in spam, the expression 'cat' in spam checks if 'cat' is a key in the dictionary, while the expression 'cat' in spam.values() returns a list of all the values in spam and checks if 'cat' is in that list.

7. A shortcut for the code if 'color' not in spam: spam['color'] = 'black' is spam.setdefault('color', 'black').

8. The module and function used for pretty printing dictionary values is the pprint module and the pprint() function.