# Assignment Answers - Dictionaries

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

An empty dictionary is represented as `{}`.

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

{'foo': 42}

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

A dictionary stores key-value pairs, allowing fast lookups by key, while a list stores elements in an ordered sequence accessed by index.

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

It results in a `KeyError` because '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()?

'cat' in spam checks if 'cat' is a key in spam.  
'cat' in spam.keys() explicitly checks if 'cat' exists in the dictionary's keys.

## 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.  
'cat' in spam.values() checks if 'cat' is a value in the dictionary.

## 7. What is a shortcut for the following code? if 'color' not in spam: spam['color'] = 'black'

The shortcut is:  
```python  
spam.setdefault('color', 'black')  
```

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

Use the `pprint` module and `pprint.pprint()` function:  
```python  
import pprint  
pprint.pprint(dictionary)  
```