

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

- An empty dictionary is represented as {}.

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

- The dictionary looks like this: {'foo': 42}. The value associated with the key 'foo' is 42.

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

- The most significant distinction is that dictionaries store key-value pairs and are unordered, while lists store items in an ordered sequence by index.

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

- You will get a KeyError 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()?**

- 'cat' in spam checks if 'cat' is a key in the dictionary.
- 'cat' in spam.keys() explicitly checks if 'cat' is one of the dictionary's keys (though this is redundant, as both expressions perform the same check).

**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 in the dictionary.
- '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'
```

- You can use the.setdefault() method:

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

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

- You can "pretty print" a dictionary using the pprint module and the pprint() function:

```
import pprint
```

```
pprint.pprint(spam)
```