**1. What does an empty dictionary&#39;s code look like?**

**2. What is the value of a dictionary value with the key &#39;foo&#39; and the value 42?**

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

**4. What happens if you try to access spam[&#39;foo&#39;] if spam is {&#39;bar&#39;: 100}?**

**5. If a dictionary is stored in spam, what is the difference between the expressions &#39;cat&#39; in spam and**

**&#39;cat&#39; in spam.keys()?**

**6. If a dictionary is stored in spam, what is the difference between the expressions &#39;cat&#39; in spam and**

**&#39;cat&#39; in spam.values()?**

**7. What is a shortcut for the following code?**

**if &#39;color&#39; not in spam:**

**spam[&#39;color&#39;] = &#39;black&#39;**

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

**SOLUTIONS**

1. *An empty dictionary's code looks like:* ***{}*** *or* ***dict()****.*
2. *The value of a dictionary with the key 'foo' and the value 42 is* ***{'foo': 42}****.*
3. *The most significant distinction between a dictionary and a list is that a list is an ordered collection of items accessed by index, while a dictionary is an unordered collection of items accessed by key. Lists use integer indices, while dictionaries use keys, which can be any immutable data type (e.g. strings, numbers, or tuples).*
4. *If you try to access* ***spam['foo']*** *if* ***spam = {'bar': 100}****, a* ***KeyError*** *will be raised because the key* ***'foo'*** *does not exist in the dictionary.*
5. *The difference between the expressions* ***'cat' in spam*** *and* ***'cat' in spam.keys()*** *is that* ***'cat' in spam*** *checks if the key* ***'cat'*** *exists in the dictionary, while* ***'cat' in spam.keys()*** *checks if the key* ***'cat'*** *is one of the keys in the dictionary.*
6. *The difference between the expressions* ***'cat' in spam*** *and* ***'cat' in spam.values()*** *is that* ***'cat' in spam*** *checks if the key* ***'cat'*** *exists in the dictionary, while* ***'cat' in spam.values()*** *checks if the value* ***'cat'*** *is one of the values in the dictionary.*
7. *A shortcut for the following code is to use the* ***dict.setdefault()*** *method:* ***spam.setdefault('color', 'black')****.*
8. *To "pretty print" dictionary values, you can use the* ***pprint*** *function from the* ***pprint*** *module:* ***from pprint import pprint****. Then use* ***pprint(dictionary)*** *to pretty print the dictionary.*