

### Dictionaries

```
ages = {"Dave": 24, "Mary": 42, "John": 58}
print(ages["Dave"])
print(ages["Mary"])
OR
primary = {
    "red": [255, 0, 0],
    "green": [0, 255, 0],
    "blue": [0, 0, 255],
}
```

Dictionaries are data structures used to map arbitrary keys to values

### get Function

```
pairs = {1: "apple",
    "orange": [2, 3, 4],
    True: False,
    None: "True",
}
print(pairs.get("orange"))
print(pairs.get(7))
print(pairs.get(12345, "not in dictionary"))
.....
>>>
[2, 3, 4]
None
not in dictionary
>>>
```

A useful dictionary method is get. It does the same thing as indexing, but if the key is not found in the dictionary it returns another specified value instead ('None', by default).

### Assignment

```
squares = {1: 1, 2: 4,
squares[8] = 64
squares[3] = 9
print(squares)
-----
{1: 1, 2: 4, 3: 9, 4: 1
```

Just like lists, dictionary keys can be values.

### finding keys

```
nums = {
    1: "one",
    2: "two",
    3: "three",
}
print(1 in nums)
print(4 not in nums)
print(not 4 in nums)
-----
True
True
```

To determine whether a key is in or not in, just as you can for a list.

