

# Dictionaries

1. Consider the following dictionary:

```
color_code = {'red':    '#FF0000',
              'green':  '#00FF00',
              'blue':   '#0000FF'}
```

What will be printed for the following expressions? If an expression generates an error write “error”.

Expression	Value
color_code['red']	
color_code['black']	
color_code['#00FF00']	
color_code[2]	

2. Consider the following dictionary:

```
person = {}
person['name'] = 'Adalbert Gerald Soosai Raj'
person['age'] = 30
person['isAlive'] = True
person['phone'] = [
    {'type': 'office', 'number': '608-123-4567'},
    {'type': 'home', 'number': '608-987-6543'}
]
person['address'] = {'street': '1210 West Dayton Street',
                    'city': 'Madison', 'state': 'WI', 'zip': 53706}
```

What is the **type** (int, float, bool, str, list, dict) of the following expressions?

Expression	Type	Expression	Type
person		person['isAlive']	
person['name']		person['phone']	
person['age']		person['address']	

3. For this code, what is printed if we replace `????` with the corresponding expression?

```
airbnb = [
{"name": "A", "rm_id": 837, "date": "10/20/2021", "reviews": [""]},
{"name": "B", "rm_id": 389, "date": "01/04/2022",
    "reviews": ["*", "", "***"]},
{"name": "C", "rm_id": 108, "date": "05/10/2021",
    "reviews": ["***", "***"]},
{"name": "D", "rm_id": 237, "date": "12/25/2021", "reviews": ["*"]},
{"name": "E", "rm_id": 278, "reviews": ["***", "**", "***"]},
]

print(????)
```

????	result	????	result
<code>airbnb[1]</code>		<code>len(airbnb[2]["reviews"])</code>	
<code>airbnb[-1][ "name"]</code>		<code>airbnb[4]["reviews"][-1][0] + "s"</code>	
<code>airbnb["name"]</code>		<code>airbnb[-6]["reviews"]</code>	
<code>airbnb[1]["date"][2]</code>		<code>airbnb[2]["reviews"].index(airbnb[1]["reviews"][2])</code>	
<code>airbnb[2]["date"][6:]</code>		<code>airbnb[1]["reviews"][:1] + airbnb[2]["reviews"][1:]</code>	

4. What is the output of the following code snippet?

```
result = []
for x in airbnb[1]:
    result.append(x)
result
```

5. What is the output of the following code snippet?

```
word = "Happiness"
d = dict()
for letter in word:
    if letter in d:
        d[letter] += 1
    else:
        d[letter] = 1
print(d)
```

6. Consider the following dictionary:

```
d = {}
d[0] = 'zero'
d[1] = 'one'
d[2] = 'two'
```

What will be printed for the following expressions? If an expression generates an error write “error”.

Expression	Value
1 in d	
'2' in d	
2 not in d	
'zero' in d	