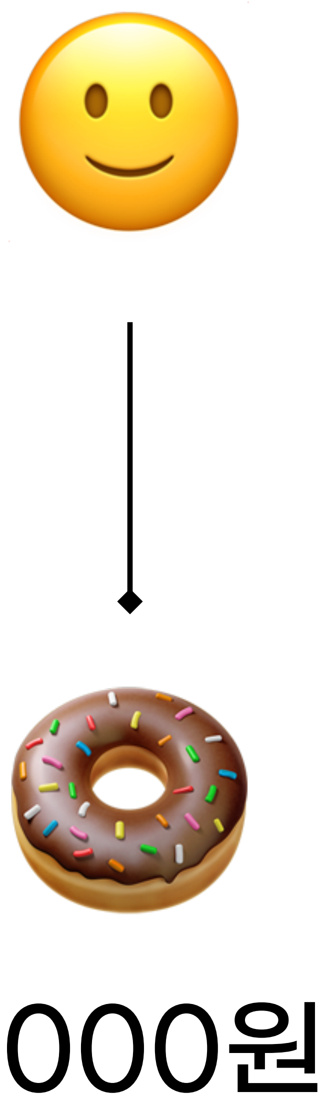
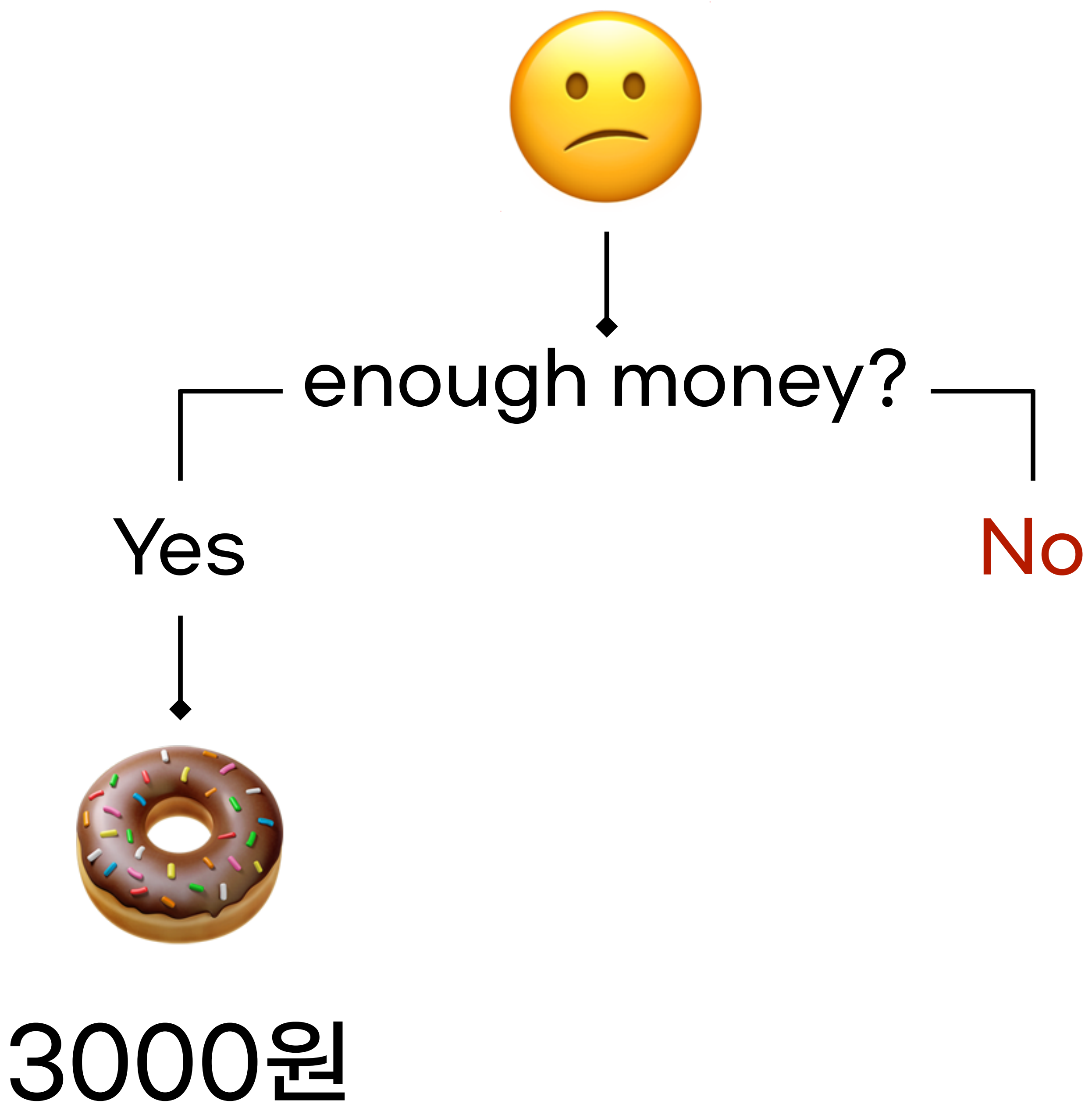
Control Flow & Function

Control Flow

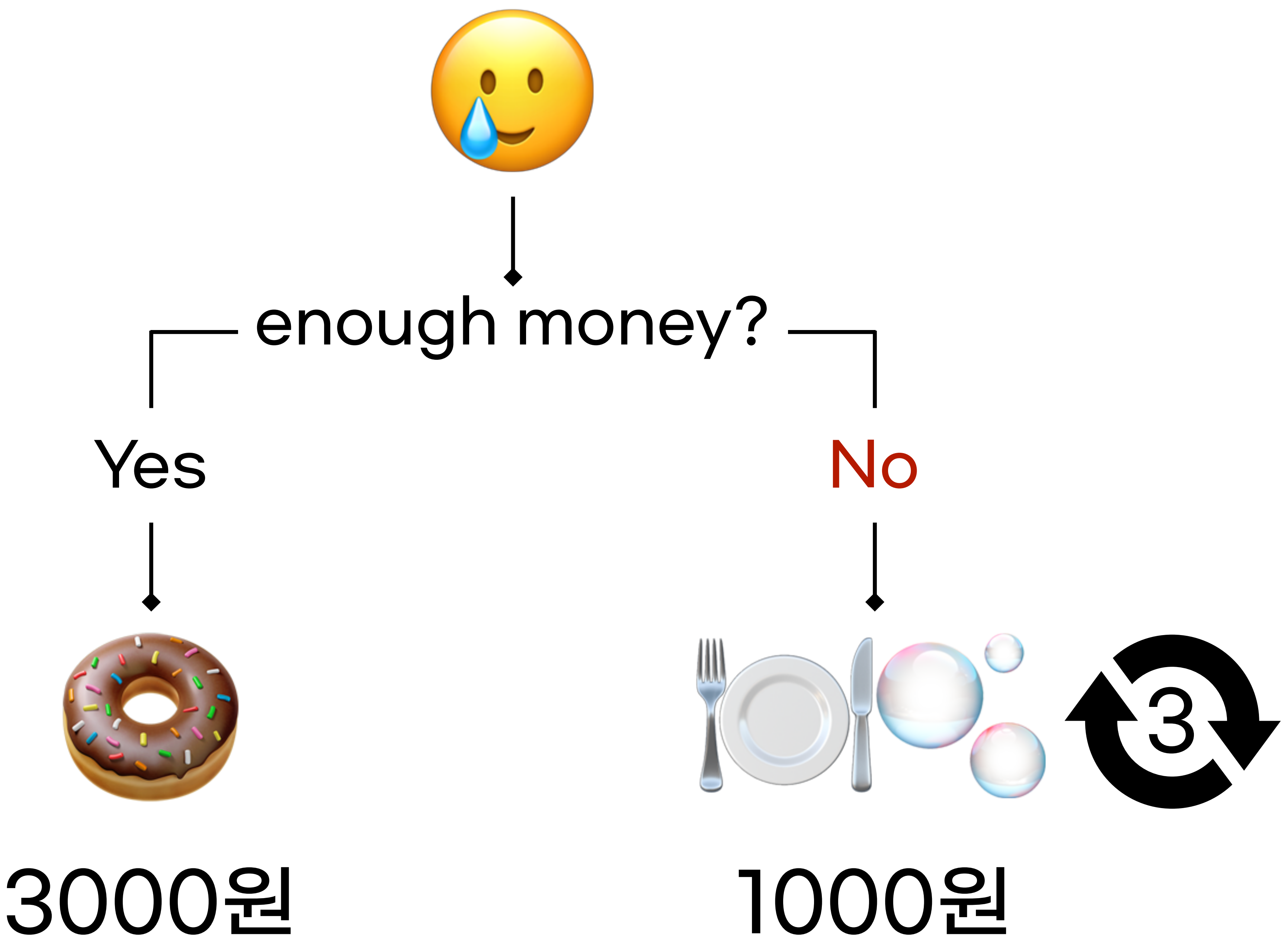
Control Flow



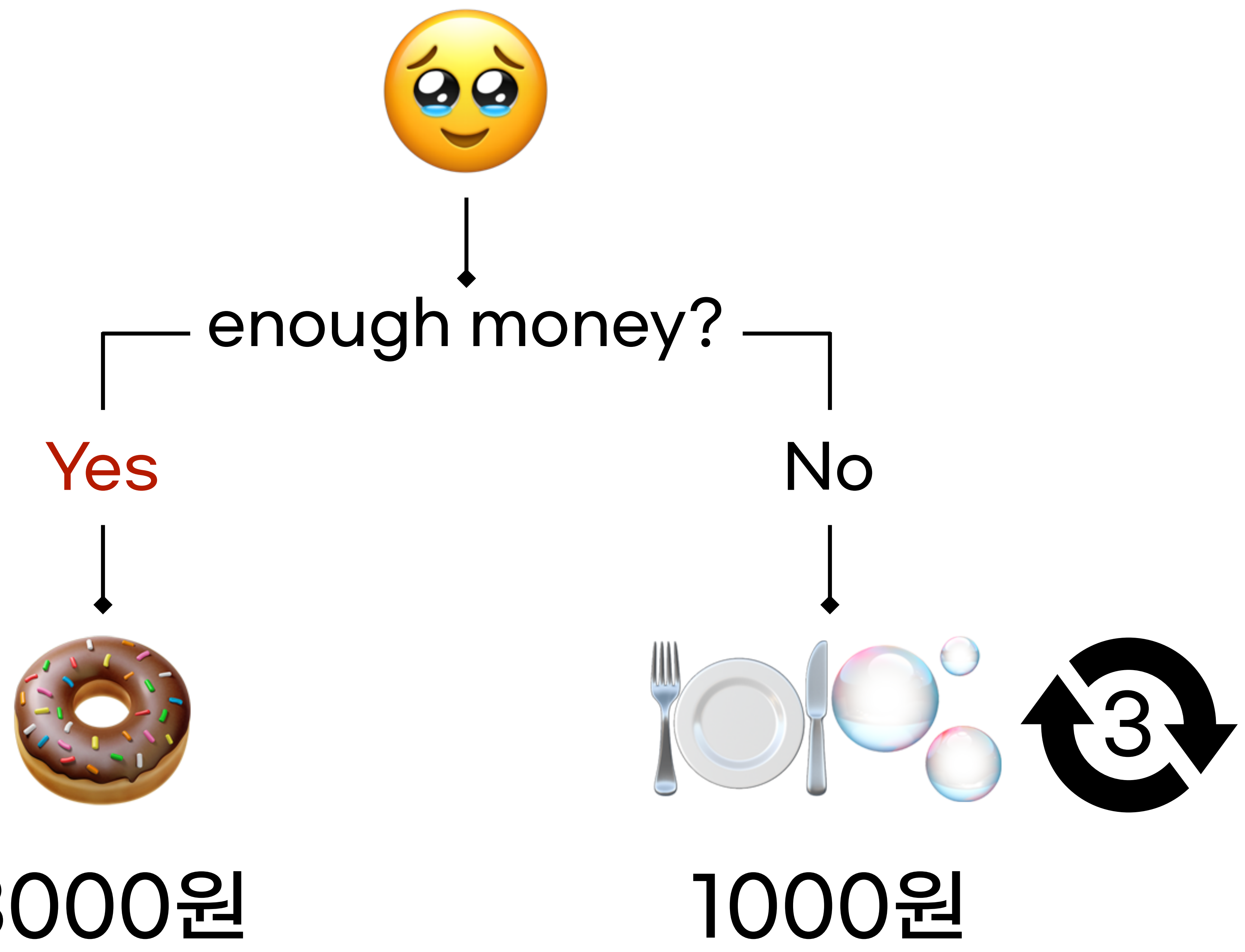
Control Flow



Control Flow



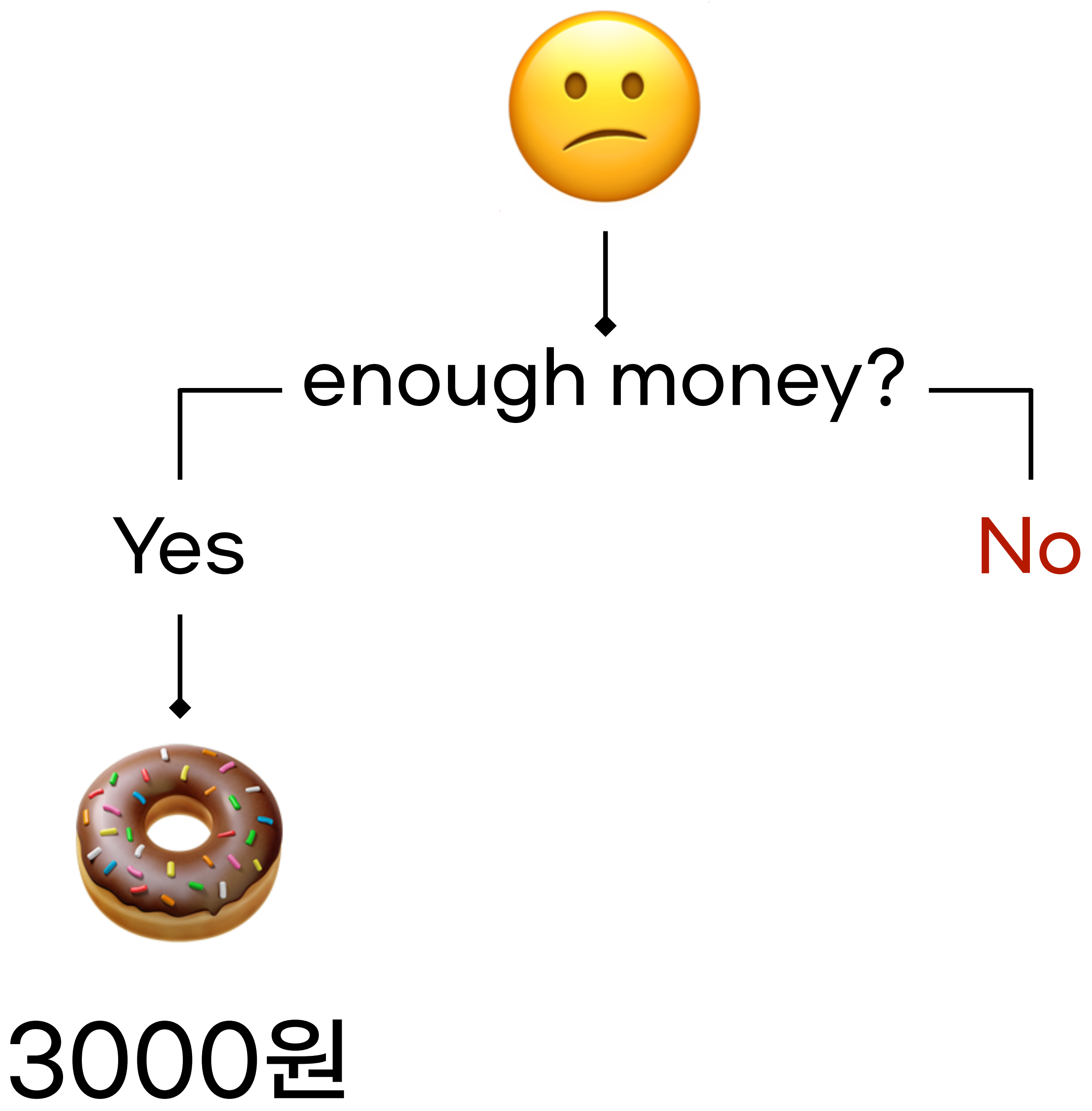
Control Flow



Control Flow

if for while

If Statement



If Statement

If Statement

```
if condition:
    code to run
```

If Statement

```
if condition:
    code to run
```

If Statement

```
if condition 1:
    code to run 1
else:
    code to run 2
```

If Statement

```
if condition 1:
    code to run 1
else:
    code to run 2
```

If Statement

```
if condition 1:
        code to run 1
else:
        code to run 2
```

If Statement

```
if condition 1:
        code to run 1
elif condition 2:
        code to run 2
else:
        code to run 3
```

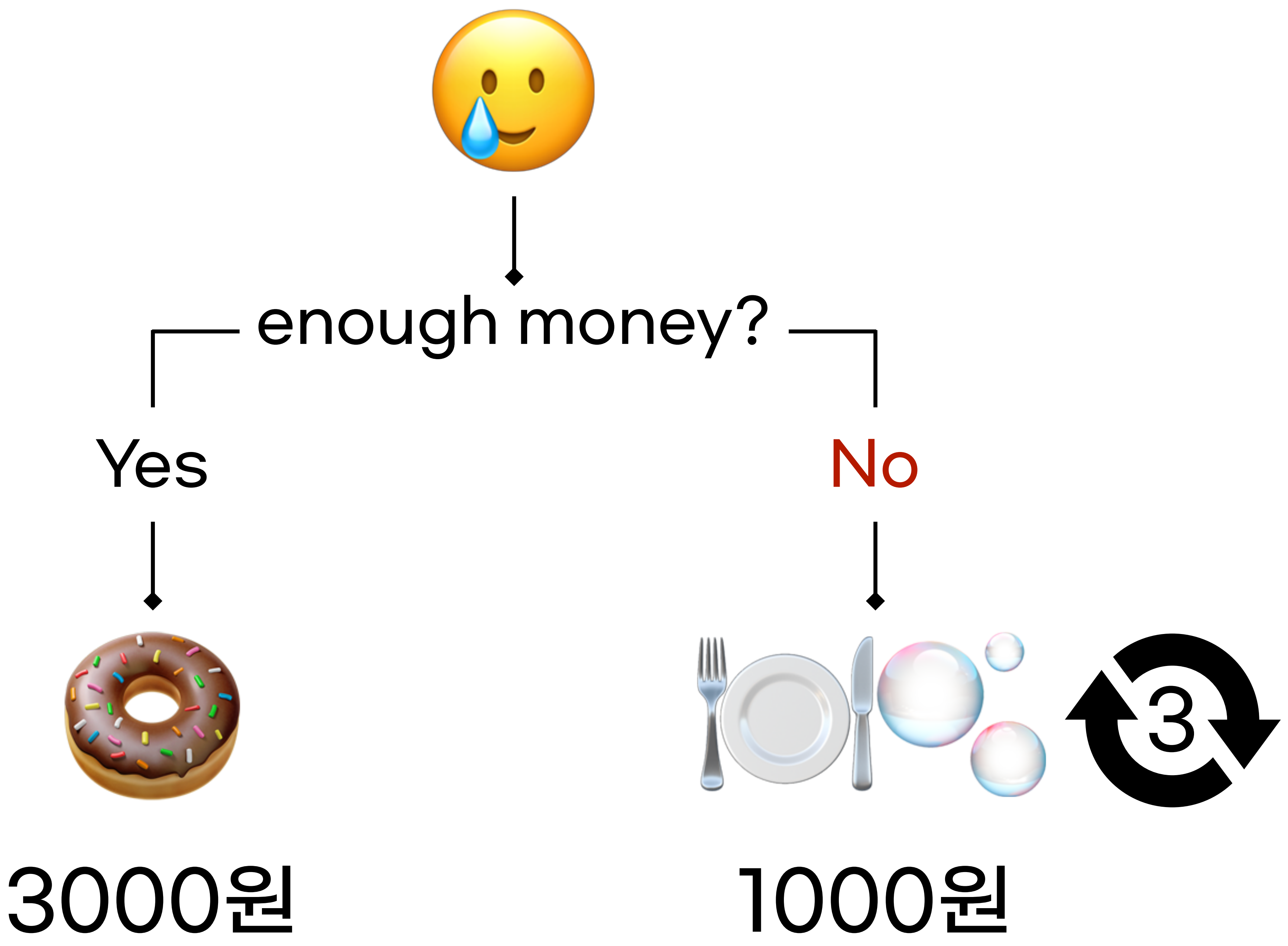
If Statement

```
if condition 1:
        code to run 1
elif condition 2:
        code to run 2
else:
        code to run 3
```

If Statement

```
if condition 1:
        code to run 1
elif condition 2:
        code to run 2
else:
        code to run 3
```

For Loop



For Loop

```
for element in sequence:
        code to run
```

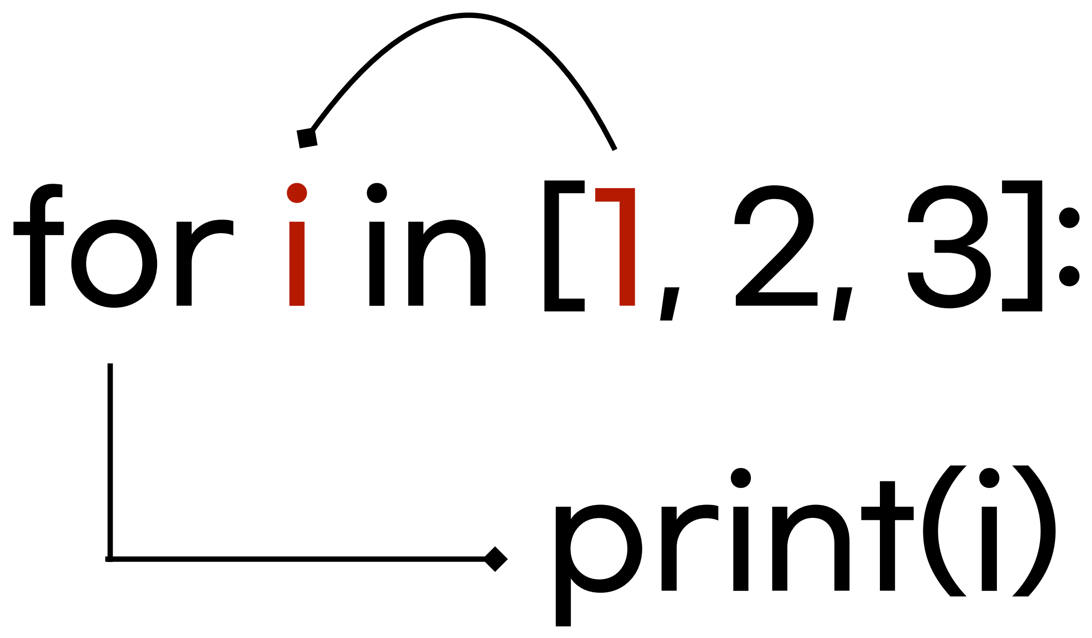
For Loop

```
for i in [1, 2, 3]:
        print(i)
```

For Loop

```
for i in [1, 2, 3]:
        print(i)
```

For Loop

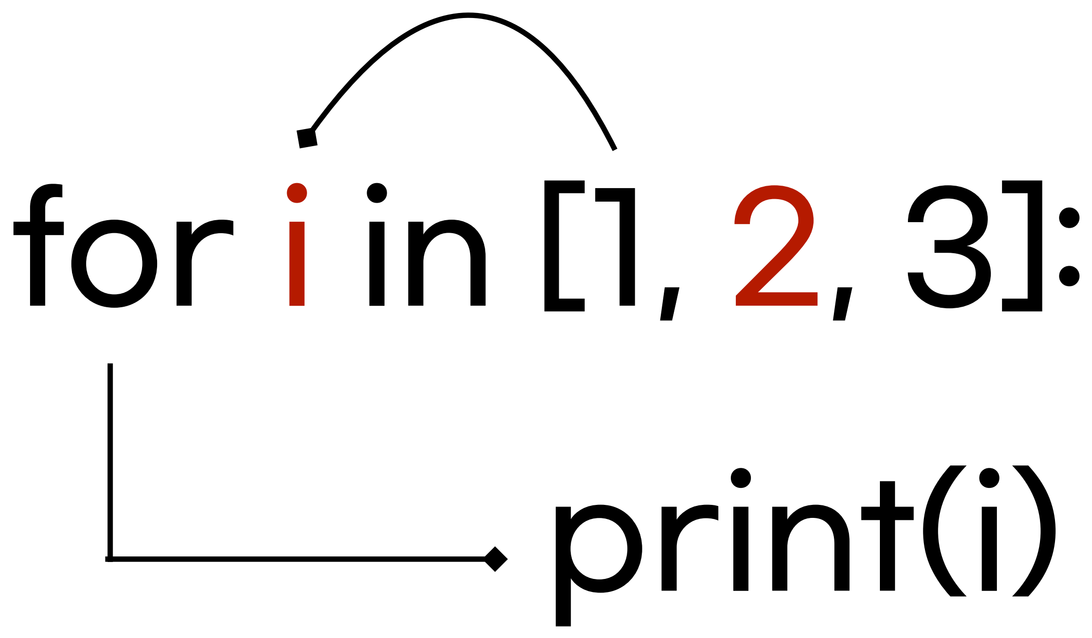


```
for i in [1, 2, 3]:
    print(i)
```

For Loop

```
for i in [1, 2, 3]:
        print(i)
```

For Loop

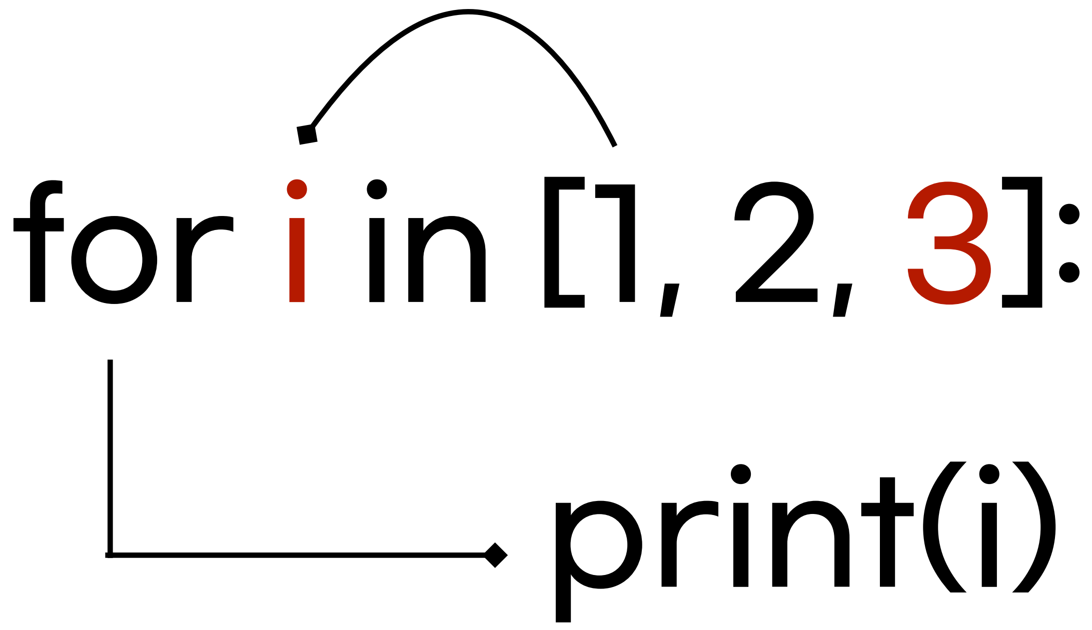


```
for i in [1, 2, 3]:
    print(i)
```

For Loop

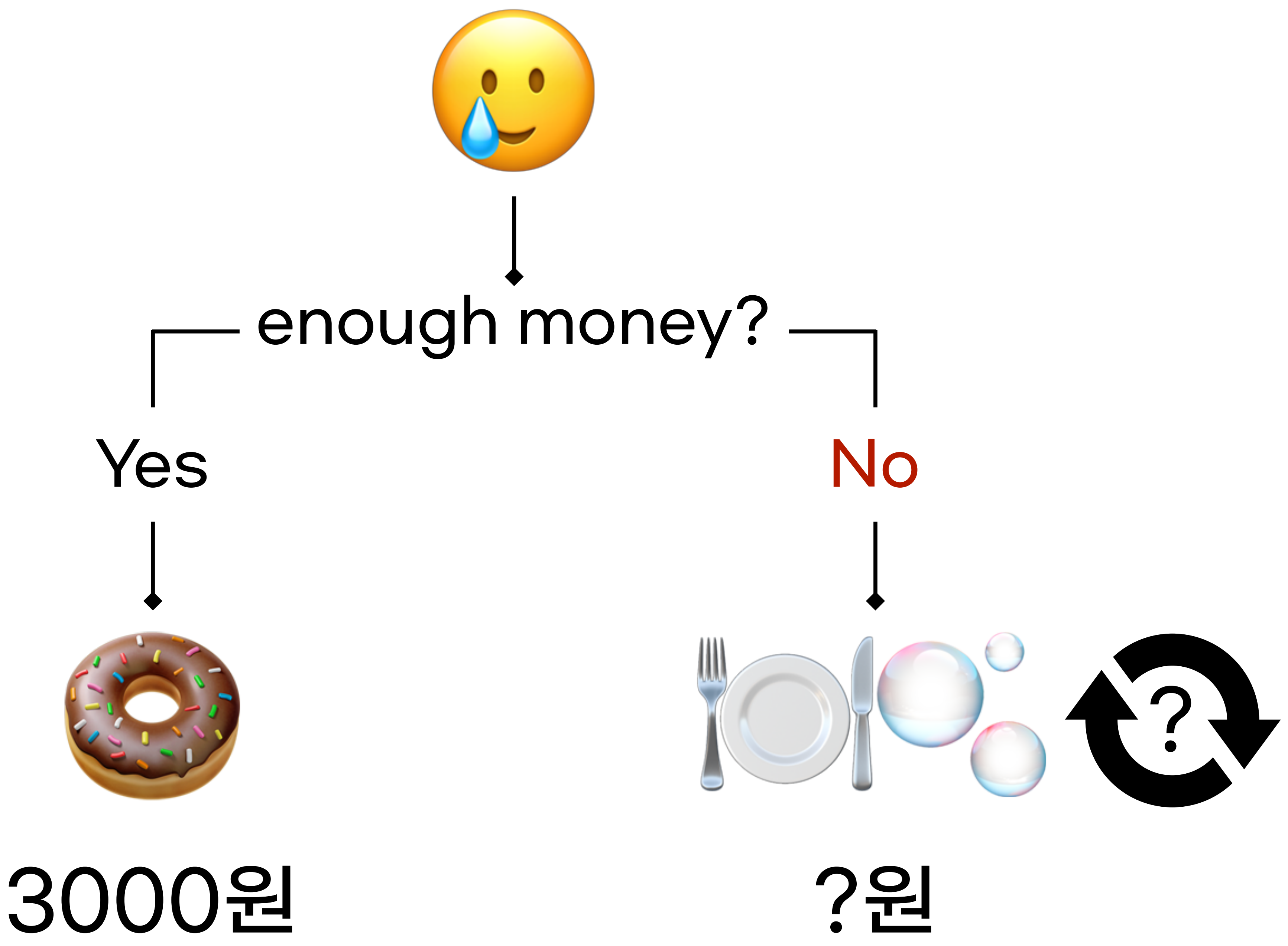
```
for i in [1, 2, 3]:
          print(i)
```

For Loop



```
for i in [1, 2, 3]:
        print(i)
```

While Loop



While Loop

```
while condition:
    code to run
```

While Loop

```
while condition:
    code to run
```

Function

$$y = f(x)$$

Function

$$\underset{\text{output}}{\underset{\uparrow}{y}} = \underset{\text{function}}{\underset{\uparrow}{f}}(\underset{\text{input}}{\underset{\uparrow}{x}})$$

Function

```
def function_name(input):
        code_to_run
        return output
```

Function

```
def function_name():
    code_to_run
    return output
```

Function

```
def function_name(input):
        code_to_run
```

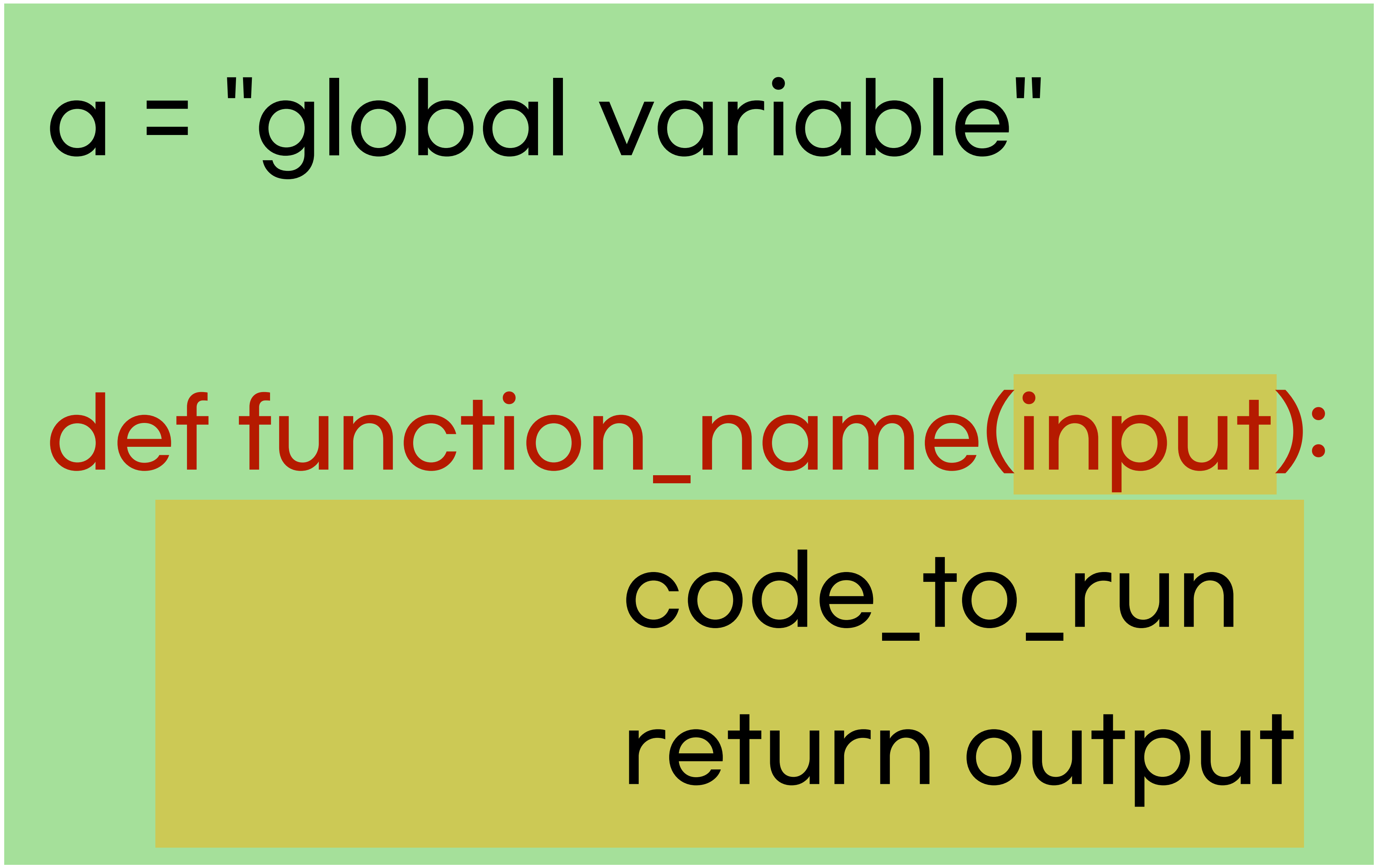
Function

```
def function_name():
        code_to_run
```

Local Scope

```
def function_name(input):
    code_to_run
    return output
```

Global Scope



```
a = "global variable"


def function_name(input):
                code_to_run
                return output
```