

## CSC108H Worksheet: Function Design Recipe

### 1. Function Design Recipe

Following the Function Design Recipe, write a function that meets this description:

This function returns a string containing a particular word repeated a particular number of times. For example, someone should be able to call the function to repeat "Marcia " three times and the function should return "Marcia Marcia Marcia ", or call the function to repeat "Buffalo " eight times and have it return "Buffalo Buffalo Buffalo Buffalo Buffalo Buffalo Buffalo Buffalo ".

**Examples**

**Type Contract**

**Header**

**Description**

**Code the Body**

**Test**

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### 2. Function Design Recipe: Type Contract and Description

Consider this code:

```
def number_of_cents(change):  
    """
```

```
>>> number_of_cents(1.25)  
25  
>>> number_of_cents(20.00)  
0  
"""
```

```
dollar_remainder = change % 1  
cents = dollar_remainder * 100  
return round(cents)
```

- (a) Add the missing **Type Contract**.
- (b) The description of this function is poor:  
The number of pennies left when you take away all the dollars from an amount of money.

In the space provided in the docstring, write a better function description.

### 3. Function Design Recipe

Folloing the Function Design Recipe, write the following function.

Function name: (parameter types) → return type	Description
calculate_tax: (number, number) → number	The first parameter is a bill and the second is a tax rate (a rate between 0.0 and 1.0 inclusive). Return the amount of tax to be paid on this bill.