

## CSC108H Winter 2023 Worksheet: Function Design Recipe

### 1. Function Design Recipe

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

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

**Examples**

**Header**

**Description**

**Body**

**Test**

## CSC108H Winter 2023 Worksheet: Function Design Recipe

### 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
    """

    dollars = change // 1          # alternate: dollars = int(change)
    cents = (change - dollars) * 100
    return round(cents)
```

- (a) Add the missing *Type Contract* (parameter and return types) to the function *Header*.
- (b) The description of this function is poor:  
The number of cents 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

Following the Function Design Recipe, write the following function.

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