Exercises

1.

Write a function
printRange(n, m)
that:

- Prints all the numbers from **n** to **m**

2.

Write a function
printEveryThirdInRange(n, m)
that:

- Prints every third number from **n** to **m**

3.

Write a function
printEveryXInRange(n, m, x)
that:

- Prints every **x** number from **n** to **m**

4.

Write a function
printEveryXInRangeBackwards(n, m, x)
that:

- Prints every **x** number from **n** to **m** backwards

5.

Write a function
printDivisibleRange(n, m, x)
that:

- Prints every number from **n** to **m** that is divisible by **x**

Hint: Check out the remainder (%) operator

6.

Write a function
printPattern(n)
that prints the following patterns:

printPattern(2)

```
* *
* *
```

printPattern(3)

```
* * *
* * *
* * *
```

printPattern(4)

```
* * * *
* * * *
* * * *
* * * *
```

7.

Write a function
printPattern(n, m)
that prints the following patterns:

printPattern(2, 2)

```
* *
* *
```

printPattern(3, 2)

```
* *
* *
* *
```

printPattern(3, 4)

```
* * * *
* * * *
* * * *
```

8.

Write a function
printPattern(m)
that prints the following patterns:

printPattern(2)

```
*
* *
*
```

printPattern(3)

```
*
* *
* * *
* *
*
```

printPattern(4)

```
*
* *
* * *
* * * *
* * *
* *
*
```

9.

Write a function
printTable(n, m)
that:

- Produces multiplication tables

printTable(2, 4)

```
1   2   3   4
2   4   6   8
```

printTable(3, 4)

```
1   2   3   4
2   4   6   8
3   6   9  12
```

printTable(4, 4)

```
1   2   3   4
2   4   6   8
3   6   9  12
4   8  12  16
```

10.

Write a function
isPalindrome(num)
that:

- Return **true** if the input number is a palindrome (1234321, 456654, 121)

11.

Write a function
isPalindrome(str)
that:

- Returns **true** if the input string is a palindrome ***("racecar", "kayak")***
- Is case insensitive ***("Racecar", "kAyak")***
- Supports spaces ***("Rats live on no evil star")***

12.

Write a function
wordCount(str)
that:

- Returns the number of words in a string

13.

Write a function
repeat(str, n)
that:

- Returns a new string that is repeated **n** times

14.

Write a function
reverseWords(str)
that:

- Reverses every word of a string and returns the result

Example:

"I am a happy dog" => "i ma a yppah god"

15.

Write a function

capitalize(str)

that:

- Returns a capitalized version of the string provided

Examples:

"helloworld" => "Helloworld"

"hElLOWoRLd" => "Helloworld"

16.

Write a function
areaOfCircle(r)
that:

- Returns the calculated area of a circle with radius **r**

17.

Write a function
exponent(base, exp)
that:

- Returns the result of $base^{exp}$

Examples:

$8^{2} = 8 * 8 = 64$

$4^{3} = 4 * 4 * 4 = 64$