

# Java Basics

## CSC 210 Practice Exercises

### FizzBuzz simple

Write a method that takes in an integer `n` as argument and returns a string. The string should be "FizzBuzz" if `n` is divisible by 3 and 5, "Fizz" if `n` is divisible by 3, and "Buzz" if `n` is divisible by 5 or `n` (as a string) if none of the conditions are true.

### Armstrong Number (three digits)

An Armstrong number of three digits is an integer such that the sum of the cubes of its digits is equal to the number itself.

- 153 is an Armstrong number since  $1^3 + 5^3 + 3^3 = 153$
- 371 is an Armstrong number since  $3^3 + 7^3 + 1^3 = 371$ .
- 407 is an Armstrong number since  $4^3 + 0^3 + 7^3 = 407$ .

Write a method that takes as argument an integer `n` and returns `true` if `n` is an Armstrong number, `false` otherwise.

## ANSWERS

### FizzBuzz simple

```
public static String fizzBuzz(int n) {
    String result = "";

    if (n % 3 == 0) result += "Fizz";
    if (n % 5 == 0) result += "Buzz";

    if (result.equals("")) result += n;

    return result;
}
```

### Armstrong Number (three digits)

```
public static int powerThree(int n) {
    return n * n * n;
}

public static boolean armstrongNumber(int n) {

    int hundreds = n / 100;
    int tens = (n - (hundreds * 100)) / 10;
    int singleDigit = (n - (hundreds * 100)) % 10;

    int sum = powerThree(hundreds);
    sum += powerThree(tens);
    sum += powerThree(singleDigit);

    boolean result = sum == n;

    return result;
}
```