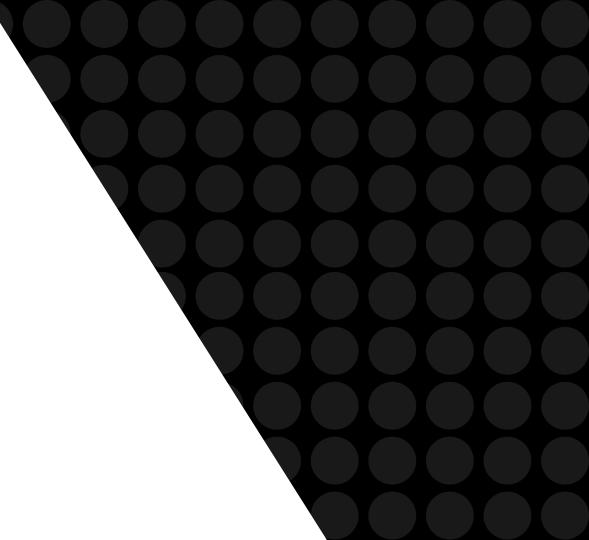# Looking Back

Midyear Review

Fizzbuzz

Write a program that gets a number as input, then prints 'fizz' if it is a multiple of 3, 'buzz' if it is a multiple of 5, and 'fizzbuzz' if it is a multiple of both 3 and 5. If it is not a multiple of either, just print out the number

Pseudo-code

What is it?
Pseudo = "fake"

Half english / half code explaining a program

Helps you think through the **structure** and **flow** of your code.

Abstracts from a specific language. (You can use java,python,c....)

Pseudo-code

Example - greeting the user

Java code

```
//Ask for name
System.out.println("What is your name?");

//Get input
String name = kboard.getNextLine();

//Print greeting using name
System.out.println("Hi " + name);
```

```java
public class FizzBuzz {
    public static void main(String[] args) {
        /*
        Write a program that gets a number as input,
        then prints 'fizz' if it is a multiple of 3,
        'buzz' if it is a multiple of 5, and
        'fizzbuzz' if it is a multiple of both 3 and
        5. If it is not a multiple of either, just
        print out the number
        */
    }
}
```

```java
import java.util.Scanner;

public class FizzBuzz {
    public static void main(String[] args) {
        //Prepare to get input
        Scanner scannerName = new Scanner(System.in);
        //Tell the user to enter a number
        System.out.println("Enter a number");
        //Get input and store it in a variable
        int inputName;
        inputName = scannerName.nextInt();
    }
}
```

```java
public static void main(String[] args) {
--> //Get a number as input
--> Scanner scannerName = new Scanner(System.in);
--> //Tell the user to enter a number
--> System.out.println("Enter a number");
--> //Store input in a variable
--> int inputName;
--> inputName = scannerName.nextInt();
--> System.out.println(inputName);

}
```

```
Enter a number
> 9
  9
```

```java
--> inputName = Scanner.nextInt();
   //If inputName is divisible by 3,
   if (inputName % 3 == 0){
     //Print "fizz"
      System.out.println("fizz");
  //If inputName is divisible by 5,
  } else if (inputName % 5 == 0){
     //Print "buzz"
      System.out.println("buzz");
 //If inputName is divisible by both 3 and 5,
 } else if ((inputName % 3 == 0) && (inputName % 5 == 0)){
     //Print "fizzbuzz"
      System.out.println("fizzbuzz");
 //If it's not divisible by either,
 } else {
     //Print inputName
      System.out.println(inputNumber);
```

```java
--> inputName = Scanner.nextInt();
    //If inputName is divisible by 3,
    if ((inputName % 3 == 0) && (inputName % 5 != 0)){
        //Print "fizz"
        System.out.println("fizz");
    //If inputName is divisible by 5,
    } else if ((inputName % 5 == 0) && (inputName % 3 != 0)){
        //Print "buzz"
        System.out.println("buzz");
    //If inputName is divisible by both 3 and 5,
    } else if ((inputName % 3 == 0) && (inputName % 5 == 0)){
        //Print "fizzbuzz"
        System.out.println("fizzbuzz");
    //If it's not divisible by either,
    } else {
        //Print inputName
        System.out.println(inputName);
```

Challenge Exercise ✊

Play around with your fizzbuzz and see what it does for a bunch of different numbers.

Now make your program do fizzbuzz for every number 1 to 100

Hint: You have to use a while loop

Super Challenge Exercise ✊🏼💪🏻

Review:
- 12 % 3 = 0
- 12 % 5 = 2
- 12 % 10 = 2
- 12 % 6 = 0
- 12 % 7 = 5

Write a program that gets 2 numbers as input, then print out "true" if the two numbers have the same <u>ones digit</u>. Print 'false' otherwise

```
//Ask for first number
//Get first number
//Ask for second number
//Get second number

//if ones digits are the same
    //print true
//else
    //print false
```