CSY2030 Java Arrays

1. Write a method isEven() which takes an integer as an argument and returns true if the argument is even, or false otherwise. You must create a method that returns a boolean value and call it from the main() method.

It should be usable like this:

```
bool answer = isEven(2);
System.out.println(answer); //true

bool answer = isEven(5);
System.out.println(answer); //false
```

2. Adjust the program to ask the user to enter a number and pass it into the isEven method:

Hint: You will need the scanner from last week!

Sample output:

```
Enter a number:
5
This is not an even number
```

3. In the office each person has an phone extension number. Write program using an array that allows you to look up the name of the person who has a specified phone extension:

1: Ron
2: Jo
3: Sally
4: Jim
5: Edward
0: Reception

Sample output:

```
Enter a phone number:
3
Sally is on extension 3
```

4. Take the program from exercise 2 and extend it so that you can enter a person's name and find out which extension they're on.

Hint: You will need to search through the array to find the correct index! Make sure you use the correct comparison operator!

Sample output:

Who's phone extension would you like to find?
Sally
Sally is on extension 3

5. Write an application using arrays that prompts the user to make a choice for a pizza size and display the price for the chosen size:

S: £6.99
M: £8.99
L: £12.50
XL: £15.00

Sample output:
What size pizza would you like?
S
Your chosen pizza will cost £6.99

6. Write a method

public static boolean sameSet(int[] a, int[] b)

that checks whether two arrays have the same elements in some order, ignoring duplicates. For example, the two arrays

1 4 9 16 9 7 4 9 11
And
11 11 7 9 16 4 1

would be considered identical. Implement this in a program.