Assignment name: PrimeNumber2 Mastery Project.
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Reflection Log

<u>Planning</u>: I planned to make the isPrime() method only hold information on printing out either "Your number is prime" or "Your number is not prime" depending on if number/2 was <= 1, and I would have the calculations in the default method
<u>Coding</u>: During coding I changed what was inside the isPrime() method. I added information for the calculations that would either return false or true, then it would print a statement depending on if the boolean value was true or false, and the default method was responsible for the print statements
<u>Now</u>: Same as <u>Coding</u>

Create a method that wil check if a number is prime. (It will first check if the number is less than or equal to 1, if it is, it will return false). (If the number is greater than 1 it will divide by 2 until there is no remainder left using modulo), if the number doesnt fall under any of these categories then it will return true. (Shown below)

```java
public static boolean isPrime(int number) {    // Method to check if a number is prime

    // A number is prime if it's greater than 1 and is only divisible by 1 and itself
    if (number <= 1) {
        return (false); // numbers less than or equal to 1 are not prime
    }

    for (int i = 2; i <= Math.sqrt(number); i++) {
        if (number % i == 0) {
            return (false);
        }
    }

    return (true); // If there are no divisors, the number is prime
}
```

Create a new method call on the isPrime() method, then will print a print statement depending on the boolean value of isPrime(number) (Shown below)

```java
public static void main(String[] args) {

    Scanner userinput = new Scanner(System.in);

    System.out.print("Enter a number: ");
    int number = userinput.nextInt();

    // Call the isPrime() method to check if the number is prime
    if (isPrime(number)) {
        System.out.println("Your number is a prime number.");
    } else {
        System.out.println("Your number isn't a prime number.");
    }
}
```