//Assignment 5

//1.

**package** psr;

**import** java.util.Scanner;

**public** **class** homework {

**public** **static** **int** countDigits(**int** n) {

**if** (n == 0) {

**return** 0;

}

**return** 1 + *countDigits*(n / 10);

}

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

**int** number = sc.nextInt();

**int** digits = (number == 0) ? 1 : *countDigits*(number);

System.***out***.println("The number of digits in " + number + " is " + digits);

}

}

//2.

**package** psr;

**import** java.util.Scanner;

**public** **class** homework {

**public** **static** **boolean** isPalindrome(String str, **int** start, **int** end) {

**if** (start >= end) {

**return** **true**;

}

**if** (str.charAt(start) != str.charAt(end)) {

**return** **false**;

}

**return** *isPalindrome*(str, start + 1, end - 1);

}

**public** **static** **void** main(String[] args) {

Scanner scanner = **new** Scanner(System.***in***);

String input = scanner.nextLine();

**boolean** result = *isPalindrome*(input, 0, input.length() - 1);

**if** (result) {

System.***out***.println("Yes");

} **else** {

System.***out***.println("No");

}

}

}

//3.

**package** psr;

**import** java.util.Scanner;

**public** **class** homework {

**public** **static** **int** power(**int** a, **int** b) {

**if** (b == 0) {

**return** 1;

}

**return** a \* *power*(a, b - 1);

}

**public** **static** **void** main(String[] args) {

Scanner scanner = **new** Scanner(System.***in***);

**int** a = scanner.nextInt();

**int** b = scanner.nextInt();

**int** result = *power*(a, b);

System.***out***.println(result);

//4.

**package** psr;

**import** java.util.Scanner;

**public** **class** homework {

**public** **static** **int** countOccurrences(String str, **char** ch, **int** index) {

**if** (index == str.length()) {

**return** 0;

}

**int** countForThisChar = (str.charAt(index) == ch) ? 1 : 0;

**return** countForThisChar + *countOccurrences*(str, ch, index + 1);

}

**public** **static** **void** main(String[] args) {

Scanner scanner = **new** Scanner(System.***in***);

String inputString = scanner.nextLine();

**char** ch = scanner.nextLine().charAt(0);

**int** count = *countOccurrences*(inputString, ch, 0);

System.***out***.println(count);

}

}