Alex Kurata

```java
import java.util.Scanner;


public class ex5_1 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);
        System.out.print("Enter an integer, the input ends if it is 0: ");

        int tempNum = input.nextInt(); //Temporary number to store one integer at a time

        int posNum = 0; //Positive number total
        int negNum = 0; //Negative number total
        double total = 0; //Total
        int counter = 0; //Counter to see the total number of integers

        if (tempNum == 0) {
            System.out.println("No numbers entered excoet 0");
        }else {
            while (tempNum != 0) {
                if (tempNum > 0) {
                    posNum++;
                }else {
                    negNum++;
                }
                total = total + tempNum;
                tempNum = input.nextInt();
                counter++;
            }
            System.out.println("The number of positives is: " + posNum +
                    "\nThe number of negatives is: " + negNum +
                    "\nThe total is: " + total +
                    "\nThe average is: " + (total / counter));
        }
```

Alex Kurata

```java
public class ex5_5 {

    public static void main(String[] args) {

        System.out.printf("%-9s%15s","Kilograms","Pounds");
        System.out.print("\t|\t");
        System.out.printf("%-9s%15s\n","Kilograms","Pounds");

        double kilo = 1;
        double lbs = kilo * 2.20462;
        double lbsRight = 20;
        double kiloRight = lbsRight * 0.453592;

        int i = 1;
        for (i = 1; i < 199; i = i + 2) {
            kilo = i;
            lbs = kilo * 2.20462;
            lbsRight = lbsRight + 5;
            kiloRight = lbsRight * 0.453592;
            System.out.printf("%-6.0f   %15.1f", kilo, lbs);
            System.out.print("\t|\t");
            System.out.printf("%-6.0f   %15.1f\n", lbsRight, kiloRight);

        }
    }
}
```

Alex Kurata

```java
import java.util.Scanner;


public class ex5_16 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.print("Enter and integer: ");
        int solve = input.nextInt();
        int i = 0;
        boolean isPrime = true;
        int counter = 0; //Counts the number of 2's
        int threeCounter = 0; //Counts the number of 3's
        int fiveCounter = 0; //Counts the number of 5's
        String two = "";
        String three = "";
        String five = "";
        if (solve % 2 == 0) { //Number is not prime
            isPrime = false;
        }else { //Number is prime
            isPrime = true;
        }
        if (isPrime == true) {
            System.out.println("The factors are: " + solve + ", 1");
        }else {
            while (solve % 2 == 0) {
                solve = solve / 2;
                counter++;
            }
            while (solve % 3 == 0) {
                solve = solve / 3;
                threeCounter++;
            }
            while (solve % 5 == 0) {
                solve = solve / 5;
                fiveCounter++;
            }
            for (i = 0; i < counter; i++) {
                two = two + ", 2";
            }
            for (i = 0; i < threeCounter; i++) {
                three = three + ", 3";
            }
            for (i = 0; i < fiveCounter; i++) {
                five = five + ", 5";
            }
            System.out.println("The factors are: " + two + three + five);
        }
```

Alex Kurata

```java

public class ex6_1 {

    public static void main(String[] args) {
        int i;
        int num;
        for (i = 1; i < 100; i++) {
            num = getPentagonalNumber(i);
            if (i % 10 == 0) {
                System.out.println(num + " ");
            }
            System.out.print(num + " ");
        }
    }
    public static int getPentagonalNumber(int n) {
        int result;
        result = n * (3 * n - 1) / 2;
        return result;
    }

}

```

Alex Kurata

```java
import java.util.Scanner;


public class ex6_3 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);
        System.out.print("Enter an integer: ");
        int userIn = input.nextInt();

        if (isPalindrome(userIn)){
            System.out.println(userIn + " Is a Palindrome");
        }else {
            System.out.println(userIn + " Is not a Palindrome");
        }

    }
        public static int reverse(int number) {
            int reverse = 0;
            while (number != 0) {
                reverse *= 10; // is ignored first iteration
                reverse += number % 10;
                number /= 10;
            }
            return reverse;
        }
        public static boolean isPalindrome(int number) {
             return (number == reverse(number));
        }
}
```