

C1:

```
public class Balance
{
    public static void main(String[] args)
    {
        double balance = 1000;
        balance = balance * 1.05;
        System.out.print("Balance after first year is ");
        System.out.println(balance);

        balance = balance * 1.05;
        System.out.print("Balance after second year is ");
        System.out.println(balance);

        balance = balance * 1.05;
        System.out.print("Balance after third year is ");
        System.out.println(balance);
    }
}
```

C2:

```
import java.util.Scanner;

public class Powers
{
    public static void main(String[] args)
    {
        Scanner in = new Scanner(System.in);
        System.out.print("Please enter a number: ");
        double number = in.nextDouble();

        double square = Math.pow(number,2);
        System.out.print("Square: ");
        System.out.println(square);

        double cube = Math.pow(number,3);
        System.out.print("Cube: ");
        System.out.println(cube);

        double fourthPower = Math.pow(number,4);
        System.out.print("Fourth power: ");
        System.out.println(fourthPower);
    }
}
```

C3:

```
import java.util.Scanner;

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

```

Scanner in = new Scanner(System.in);
System.out.print("Please enter the first integer: ");
int firstInt = in.nextInt();
System.out.print("Please enter the second integer: ");
int secondInt = in.nextInt();

int sum = firstInt + secondInt;
System.out.print("Sum: ");
System.out.println(sum);

int difference = firstInt - secondInt;
System.out.print("Difference: ");
System.out.println(difference);

int product = firstInt * secondInt;
System.out.print("Product: ");
System.out.println(product);

double average = (firstInt + secondInt) / 2.0;
System.out.print("Average: ");
System.out.println(average);

int max = Math.max(firstInt, secondInt);
System.out.print("Maximum: ");
System.out.println(max);

int min = Math.min(firstInt, secondInt);
System.out.print("Minimum: ");
System.out.println(min);
}
}

```

C4:

```

import java.util.Scanner;

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

        System.out.print("Please enter width of rectangle: ");
        double width = in.nextDouble();

        System.out.print("Please enter height of rectangle: ");
        double height = in.nextDouble();

        System.out.print("Area of rectangle: ");
        System.out.println(width * height);
        System.out.print("Perimeter of rectangle: ");
        System.out.println(2 * width + 2 * height);
    }
}

```

C5:

```

import java.util.Scanner;

public class RestaurantMeal
{
    public static void main(String[] args)
    {
        final double VAT_RATE = 0.175;
        final double GRAT_RATE = 0.1;

        Scanner in = new Scanner(System.in);
        System.out.print("Enter total meal cost: ");
        double totalMealCost = in.nextDouble();

        double vat = totalMealCost * VAT_RATE;
        double grat = totalMealCost * GRAT_RATE;

        double mealPrice = totalMealCost + vat + grat;
        System.out.print("Total price of meal: ");
        System.out.println(mealPrice);
    }
}

```

C6:

```

import java.util.Scanner;

public class GivingChange
{
    public static void main(String[] args)
    {
        Scanner in = new Scanner(System.in);
        System.out.print("Enter the amount due, in pence: ");
        int amountDue = in.nextInt();

        System.out.print("Enter the amount received, in pence: ");
        int amountReceived = in.nextInt();

        int changeInPence = amountReceived - amountDue;
        int pounds = changeInPence / 100;
        int rest = changeInPence % 100;

        int fiftys = rest / 50;
        rest = rest % 50;

        int twentys = rest / 20;
        rest = rest % 20;

        int tens = rest / 10;
        rest = rest % 10;

        int fives = rest / 5;
        rest = rest % 5;

        int twos = rest / 2;
        int ones = rest % 2;

        System.out.println("Give the following change: ");
    }
}

```

```

        System.out.print(pounds); System.out.println(" pounds");
        System.out.print(fiftys); System.out.println(" 50p");
        System.out.print(twentys); System.out.println(" 20p");
        System.out.print(tens); System.out.println(" 10p");
        System.out.print(fives); System.out.println(" 5p");
        System.out.print(twos); System.out.println(" 2p");
        System.out.print(ones); System.out.println(" 1p");
    }
}

C7:

import java.util.Scanner;

public class RemoveComma
{
    public static void main(String[] args)
    {
        System.out.println("Please enter a number between 1,000 and
999,999: ");
        Scanner in = new Scanner(System.in);
        String number = in.next();
        int len = number.length();
        String firstPart = number.substring(0,len-4);
        String secondPart = number.substring(len-3,len);
        System.out.println(firstPart + secondPart);
    }
}

```