1.Perimeter of rectangle-

```
class problem1 {
   public static void main(String[] args) {
      int l = 5;
      int b = 7;

      int Perimeter = 2*(l+b);
      int Area = l*b;
      System.out.println("Perimeter = " + Perimeter + "\n" + "Area = " + Area);
   }
}
```

2.Perimeter of Triangle-

```
class problem2 {
   public static void main(String[] args) {
      int side1 = 2;
      int side2 = 3;
      int side3 = 5;
      int Perimeter = side1 + side2 + side3;
      System.out.println("Perimeter = " + Perimeter);
   }
}
```

3.Write a program to add 8 to the number 2345 and then divide it by 3. Now, the modulus of the quotient is taken with 5 and then multiply the resultant value by 5. Display the final result.

```
class Problem3 {
   public static void main(String[] args) {
      int a = 2345;
      int b = (a+8)/3;
      int c = (b%5)*5;
      System.out.println("Result is " + c);
   }
}
```

4.solve the above question using assignment operators (eg. +=, -=, *=).

```
class Problem4 {
   public static void main(String[] args) {
      int a = 2345;
      a += 8;
      a /= 3;
      a %= 5;
```

```
        a *= 5;
        System.out.println("Result is " + a);
    }
}
```

5.check if the two numbers 23 and 45 are equal.

```
class Problem5 {
    public static void main(String[] args) {
        int a = 23;
        int b = 45;

        if (a == b)
            System.out.println("equal");
        else
            System.out.println("Not equal");
    }
}
```

6.print the power of 7 raised to 5.

```
class Problem6 {
    public static void main(String[] args) {
        double a = Math.pow(7, 5);
        System.out.println("Result is " + a);

    }
}
```

7.Assign values of variables 'a' and 'b' as 55 and 70 respectively and then check if both the conditions 'a < 50' and 'a < b' are true.

```
class Problem7 {
    public static void main(String[] args) {
        int a = 55;
        int b = 70;

        if (a < 50 && a < b)
            System.out.println("Condition is True");
        else
            System.out.println("Condition is False");
    }
}
```

8.check if atleast one of the conditions 'a < 50' or 'a < b' is true.

```
class Problem8 {
   public static void main(String[] args) {
      int a = 55;
      int b = 70;

      if (a < 50 || a < b)
         System.out.println("Condition is True");
      else
         System.out.println("Condition is False");
   }
}
```

9.If the marks of Robert in three subjects are 78,45 and 62 respectively (each out of 100), write a program to calculate his total marks and percentage marks.

```
import java.text.DecimalFormat;
class Problem9 {
   static DecimalFormat df = new DecimalFormat("0.00");

   public static void main(String[] args) {
      int sub1 = 78;
      int sub2 = 45;
      int sub3 = 62;
      double total = sub1 + sub2 + sub3;
      double percentage = (total/300)*100;
      System.out.println("Total marks = " + (int) total);
      System.out.println("Percentage = " + df.format(percentage));
   }
}
```

10.program by using a third variable

```
class Problem10 {
   public static void main(String[] args) {
      int a, b, c;
      a = 6;
      b = 8;

      c = a;
      a = b;
      b = c;

      System.out.println(a);
      System.out.println(b);
   }
```

```
}
```

11.convert Fahrenheit into Celsius.

```
import java.util.Scanner;
class Problem11 {
   public static void main(String args[]) {
      float Fahrenheit, Celsius;

      System.out.print("Enter Temperature in Fahrenheit : ");
      Scanner sc = new Scanner(System.in);
      Fahrenheit = sc.nextFloat();

      Celsius = ((Fahrenheit - 32) * 5) / 9;
      System.out.println("Temperature in Celsius is: " + Celsius);
      sc.close();
   }
}
```

12.program to calculate the total number of girls getting grade 'A'.

```
public class Problem12 {
   public static void main(String[] args) {
      double total, TotalGradeA, gradeAboys, gradeAgirls;
      total = 90;

      TotalGradeA = (50/100.0) * total;   // 45
      gradeAboys = 20;
      gradeAgirls = TotalGradeA - gradeAboys;  //20

      System.out.println("total number of girls getting grade A : " + (int) gradeAgirls);
   }
}
```

13.calculate the sum of the digits of a 3-digit number.

```
import java.util.Scanner;
class Problem13 {
   public static void main(String args[]) {
      int num, sum = 0;;

      System.out.print("Enter a number: ");
      Scanner sc = new Scanner(System.in);
      num = sc.nextInt();

      while (num != 0) {
         sum = sum + num % 10;
```

```
            num = num / 10;
        }
        System.out.println("Sum of all digits: " + sum);

        sc.close();
    }
}
```

14.reverse a 3-digit number.

```
import java.util.Scanner;
class Problem14 {
    public static void main(String args[]) {
        int num;

        System.out.print("Enter a number: ");
        Scanner sc = new Scanner(System.in);
        num = sc.nextInt();

        int rev_num = 0;
        while (num > 0) {
            rev_num = rev_num * 10 + num % 10;
            num = num / 10;
        }
        System.out.println("Reversed number is: " + rev_num);
        sc.close();
    }
}
```