Understanding the concept of methods in Java. The idea is similar to the functions in Mathematics.

1. Let us assume a mathematical function $f(x, y) = x^2 + 2xy + 6$;
   where x is always a positive integer
   y is always a decimal value
   the function *f* always gives a decimal value.
   Write the answers for the following.
   Given mathematical function is $f(x, y) = x^2 + 2xy + 6$
   f(2, 3.0) = 2^2 +2x2x3.0 +6
   = 4+12.0+6
   =22.0
   f(2,4) =
   f(-2, 3.0)=
   f(2, 1) =

2. Template for writing a Java method.

```
public returnType methodName(datatype variable1Name,
datatype variable2Name){
return ……;
}
```

   Note: You may have any number of parameters for a method. That means either 0 or 1 or 2 or 3 or 4 and so on… The above syntax of a method is only for two parameters.

3. Write a Java method that computes the perimeter of the rectangle. The method takes two parameters. Perimeter is always integer, length and breadth are also double values. The formula for perimeter of a rectangle is 2(length + breadth)

```
public int  caclulatePerimeter(double length, double
breadth){
return 2(length + breadth);
}

(OR)

public int  caclulatePerimeter(double l, double b){
return 2(l + b);
}

(OR)

public int calcPeri(double l, double w){ // w is width
return 2(l+w)
}
```

4. Write a Java method to calculate the volume of the cuboid. The method has three parameters. The volume and all other parameters are also double values. (This is for your practice. You may search the formula on the Internet. If you don't know how to write, do not ask anyone, read the above example and compare with what I ask in this question.)
5. Write a Java method to compute the volume of the cube that returns a double value. The method has only one parameter of type integer. (This is also for your practice. You may search the formula on the Internet. If you don't know how to write, do not ask anyone, read the above examples and compare with what I ask in this question.)
6. After finishing the above two questions, review and compare mathematical function and the template of Java method. The only difference is the syntax, which is similar to (Valthukal in Tamil, Abhivadan in Hindi, Greetings in English, Saludos in Spanish, Subhakanshalu in Telugu)