

# IB Computer Science Test 01

**Part A:** Convert the following pseudocode into Java source code.

	pseudocode	Java
1	<pre>loop X from 1 to 10   if X mod 2 = 0 then     output "even"   else     output "odd"   end if end loop</pre>	<pre>public class Test01 {    public static void main(String[] args) {      }// end main   }// end Test01</pre>

**Part B:** Convert the following flowcharts into pseudocode.

	flowchart	pseudocode
2	<pre>graph TD; A[X = 0] --&gt; B["SUM = SUM + ARRAY[X]"]; B --&gt; C[X = X + 1]; C --&gt; D{"X &gt; ARRAY.length?"}; D -- NO --&gt; B; D -- YES --&gt; E["AVG = SUM div ARRAY.length"];</pre>	

**Part C:** Write pseudocode for the following problems.

3. A method returns true if a given number is prime otherwise it returns false. A number is prime if it is only divisible by itself and one.



Command Terms		
Term	Level	Definition
Distinguish	2	Make clear the differences between two or more concepts or items.
Explain	3	Give a detailed account including reasons or causes.
Outline	2	Give a brief account or summary

**Part E:** [Nature of Programming Languages](#)

6	Distinguish between a compiled language and an interpreted language
7	Explain the essential features of a computer language.

8 Explain the need for higher level languages

9 Outline the need for a translation process from a higher level language to machine executable code.