Instructions:

1) **Open website www.compilejava.net**   [Online Coding IDE]
2) **Delete the code already provided.**
3) **Code each of the following problem.**
4) **Hit COMPILE & EXECUTE.**   [We'll refer this as RUN button from now on]
5) **If there were no errors then you will get output of your program.**
6) **If there were any compile time errors then rectify them and run your program again.**

Common Mistakes

Java is a case sensitive language. Remember 'S' of 'String' and 'System' is in capital. All the keywords like public, class, static and void are in small.

Right Way	Wrong Way

```public class ABC```
 	
[public and class are in small letters]
	```Public class ABC```
	```PUBLIC class ABC```
	```Public Class ABC```
	```class ABC```

```public static void main(String[] args)```
 	
[public, static, void and main are in small letters]
[notice brackets '[]' after String]
	```public static void main(String args)```
	```public static void main(String[])```
	```public static void main()```
	```main(String[] args)```
	```public static main(String[] args)```
	```public void main(String[] args)```
	```public static void Main(String[] args)```
	```static void main(String[] args)```

```String str = "trisect";``` ['S' in String is in capital]	```string str = "trisect";``` ```String str = trisect;```

```System.out.println("hello");```
['S' in System is in capital]
	```system.out.println("hello");```
	```System.out.println("hello);```
	```Systemoutprintln("hello");```

Common Mistakes with loop

Java is a case sensitive language. Remember 'S' of 'String' and 'System' is in capital. All the keywords like public, class, static and void are in small.

Right Way	Wrong Way

```for(int i = 1; i < 2; i++)```
```{```
```   //loop body```
```}```
	Adding semicolon at the end
	```for(int i = 1; i < 2; i++);```
	
	Not using brackets for loop body
	```for(int i = 1; i < 2; i++)```
	``` //loop body```
	``` //loop body```
	
	Using comma instead of semi-colon

```
for(int i = 1, i < 2, i++)
{
        //loop body
}
```

Task 1	Use the following template to code each problem.
Problem	**Print 1 to 8 on screen using a For loop.**

Code Template:

```
1   public class Task1
2   {
3       public static void main(String[] args)
4       {
5             //write code here
6       }
7   }
```

Task 2.1	Given n as input. Print 1 to n (in following format) on screen using a For loop.
	Output Format:
	Start
	1
	2
	...
	n
	End

Task 2.2	Now RUN your code and check if your output matches with Expected Output.	
Test Cases	**Input**	**Expected Output**
	n = 2	Start 1 2 End
	n = 3	Start 1 2 3 End

Task 3	Given n as input. Print sum of 4th power of all numbers from 1 to n. Check your output against following set of inputs.	
Test Cases	**Input**	**Expected Output**
	n = 2	17 [because $1^4 + 2^4$ = 17]
	n = 4	354

		[because $1^4 + 2^4 + 3^4 + 4^4 = 354$]

Task 4	Given n as input. Print product of all numbers from 1 to n.	
	Input	**Expected Output**
	n = 1	1
Test Cases	n = 5	120 [because 1*2*3*4*5= 120]

Task 5	Print table of 5 in following format using For loop. Run your code.

Expected Output:

5X1=5
5X2=10
.
.
5X10=50

Task 6	Given n as input. Print following pattern using For loop.	
	Input	**Expected Output**
	n = 3	# ## ###
Test Cases	n = 5	# ## ### #### #####