

## Write Java programs for the following:

1. Input a number and print all the factors of that number.
2. Take integer inputs till the user enters 0 and print the sum of all numbers  
(HINT: while loop).
3. Take integer inputs till the user enters 0 and print the largest number from all.
4. Print all even numbers till n.
5. Make a menu driven program. The user can enter 2 numbers, either 1 or 0.  
If the user enters 1 then keep taking input from the user for a student's marks(out of 100).  
If they enter 0 then stop.  
If he/ she scores :  
Marks >=90 -> print "This is Good"  
89 >= Marks >= 60 -> print "This is also Good"  
59 >= Marks >= 0 -> print "This is Good as well"  
Because marks don't matter but our effort does.  
(Hint : use do-while loop but think & understand why)
6. Print if a number is prime or not (Input n from the user).

=====PRINT USING LOOPS=====

7. \* \* \* \* \*  
\* \* \* \* \*  
\* \* \* \* \*  
\* \* \* \* \*

8. \* \* \* \* \*  
\* \* \* \* \*  
\* \* \* \* \*  
\* \* \* \* \*

9. \*  
\* \*  
\* \* \*  
\* \* \* \*

10. \* \* \* \*  
\* \* \*  
\* \*  
\*

11. \*  
\* \*  
\* \* \*  
\* \* \* \*

12. 1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5

13. 1 2 3 4 5  
1 2 3 4  
1 2 3  
1 2  
1

14. 1  
2 3  
4 5 6  
7 8 9 10  
11 12 13 14

15. 1  
 0 1  
 1 0 1  
 0 1 0 1  
 1 0 1 0 1

16. \* \*  
 \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*

17. \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*

18. 1  
 2 2  
 3 3 3  
 4 4 4 4  
 5 5 5 5 5

19. 1  
 212  
 32123  
 4321234  
 543212345

20.

```
      *
    * * *
  * * * * *
* * * * * * *
* * * * * * *
  * * * * *
    * * *
      *
```

21. Print a hollow Butterfly

```
      *              *
    **              **
  * *              * *
 *  *  *  *      *
 *    ** *      *
 *    ** *      *
 *  *  *  *      *
 * *              * *
**              **
*              *
```

**22. Print a hollow Rhombus.**

```
*****  
  
*   *  
  
*   *  
  
*   *  
  
*****
```

**23. Print Pascal's Triangle.**

```
1  
1 1  
1 2 1  
1 3 3 1  
1 4 6 4 1
```

**24. Print half Pyramid.**

```
1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5
```

**25. Print Inverted Half Pyramid.**

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