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1. write a program to print hollow square dollar pattern

```
public static void main (String args[])
{
    Scanner input = new Scanner (System.in);
    int n = input.nextInt();
    for (int i=0; i<n; i++)
    {
        for (int j=0; j<n; j++)
        {
            if (i==0 || j==0 || i==n-1 || j==n-1)
                System.out.print ("$");
            else
                System.out.print (" ");
        }
        System.out.println();
    }
}
```

2. write a program to find the sum of digits of n digit number (sum should be single digit)

sample input:
Enter N value : 3
Enter 3 digit number : 193

```
Scanner input = new Scanner (System.in);
int n = input.nextInt();
int sum = 0;
while (n != 0)
{
    int rem = n % 10;
    sum = sum + rem;
    n = n / 10;
}
System.out.println (n (sum));
S2 = S2 + 3;
```

- 2 write a program to find the square root of a perfect square number with the positive integer values
sample input:- 6561
sample output:- 81-81

```
import java.util.Scanner;  
import java.lang.Math;  
public class ak  
{ public static void main(String args[]){  
    Scanner input = new Scanner(System.in);  
    double n = input.nextInt();  
    double sqrt = Math. pow(n, 0.5);  
    double sq = Math. sqrt(n);  
    System.out.print(sqrt + " " + n + sqrt);  
}
```

- 3
4. write a program to print in verted pyramid pattern
- ```
Scanner input = new Scanner(System.in);
int n = input.nextInt();
for (int i = n; i >= 1; i--)
{ for (int j = 0; j < n - i; j++)
 System.out.print(" ");
 for (int k = i; k <= 1; k++)
 System.out.print("*");
 System.out.println();
}
```

palindrome");

- 5) write a program all the prime and composite numbers  
using sample input

```
int arr[] = {4, 54, 29, 71, 7, 59, 98, 23};
int com = 0, pri = 0;
for (int i = 0; i < arr.length; i++)
< int c = 0;
for (int j = 1; j < arr[i]; j++)
< if (arr[i] % j == 0)
 c++;
if (c > 2)
 com++;
else
 pri++;
System.out.print("Composite number: " + com);
System.out.print("Prime number: " + pri);
```

- 6) find the  $m^{th}$  maximum number and  $n^{th}$  minimum number  
in array find the sum of difference of it.

```
int arr[] = {14, 15, 87, 36, 25, 89, 34};
int len = arr.length;
for (int i = 0; i < len; i++) {
 for (int j = i + 1; j < len; j++) {
 if (arr[i] > arr[j]) {
 int temp = arr[i];
 arr[i] = arr[j];
 arr[j] = temp;
 }
 }
}
```

• ("palindrome");

("not palindrome");

3

```
int m = n = 3;
int max = arr[les - m];
int min = arr[n - 1];
system.out.print(m + " maximum number = " + max);
system.out.print(" " + n + " minimum number = " + min)
```

2. write a program to print the total amount available  
in the condition applied

total denominations are 2000 500 200 100 get the  
the denomination priority from the user and total  
available for user

```
int n1 = 500, d1 = 4, n2 = 100, d2 = 2, n3 = 20, d3 = 32, n4 = 2000
```

d4 = 1;

```
int total = (n1 * d1) + (n2 * d2) + (n3 * d3) + (n4 * d4);
system.out.print("total available balance in ATM: " + total);
```

3. write a program using stack to check

case1: given string is palindrome or not

case2: given number is palindrome or not

```
string s1 = "MADAM";
```

```
string s2 = "";
```

```
int len = s1.length();
```

```
for (int i = len - 1; i >= 0; i--) {
```

```
< s2 = s2 + s1.charAt(i);
```

4) ( $s_1$ . equals( $s_2$ ))

    System.out.print("palindrome");

else

    System.out.print("not palindrome");

5) write a program to convert decimal number of the  
binary number to octal number?

Int dec = 15;

String bin = Integer.toBinaryString(dec);

String oct = Integer.toOctalString(dec);

System.out.print("Binary number = "+bin);

System.out.print(" Octal number = "+oct);

10) In an organization they decide to give bonus all  
the employee year. A S-I. salary calculate the bonus  
that how to given employee will get.

Scanner input = new Scanner(System.in);

int a, b;