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1. sum of n natural num

class main {

public static void main (String [] args) {

int n;

int sum = 0;

for (i=0; i<100; i++) {

sum = sum + i;

}

System.out.println(sum)

}

2. check the num is prime

class main {

public static void main (String [] args) {

int n;

for (i=0; i<n; i++) {

if n % i == 0 {

System.out.println("prime")

else

System.out.println("not prime")

}

}

3. To find factorial:

```
class Main{  
    public static void main (String [] args){  
        int n, fact = 1;  
        for (int i = 0; i <= n; i++) {  
            fact = fact * i;  
        }  
        System.out.println(fact);  
    }  
}
```

4. Fibonacci series

```
class Main{  
    public static void main (String [] args){  
        int a = 0;  
        int b = 1;  
        int c, n;  
        for (int i = 0; i < n; i++) {  
            c = a + b;  
            a = b;  
            b = c;  
            System.out.println(c);  
        }  
    }  
}
```

5. Reverse a number:

```
class Main{  
    public static void main (String [] args){  
        int rev = 0, org, x, u;
```

```
while (n>0) {
```

```
    rev = n % 10;
```

```
    org = rev * 10 + r;
```

```
    n = n / 10;
```

```
    if org == rev {
```

```
        System.out.println("reverse num");
```

```
} }
```

Q. Palindrome:

```
class Main
```

```
public static void main(String[] args) {
```

```
    int rev=0, org, r, n;
```

```
    while (n>0) {
```

```
        r = n % 10
```

```
        org = rev * 10 + r
```

```
        n = n / 10
```

```
        if org == rev {
```

```
            System.out.println("Palindrome");
```

```
} }
```

7. Armstrong:-

```
class main{  
    public static void main(String[] args){  
        int n, sum, r;  
        while (n>0){  
            r = n%10;  
            sum = sum + (r*r*r);  
            n /= 10;  
        }  
        if (n == sum){  
            System.out.println("Armstrong");  
        }  
        else  
            System.out.println("not");  
    }  
}
```

8. Sum of digits:-

```
class main{  
    public static void main(String[] args){  
        int n, sum, r;  
        while (n>0){  
            r = n%10;  
            sum = sum + r;  
            n /= 10;  
        }  
        System.out.println("sum");  
    }  
}
```

square root

```
import java.util.*;  
  
class Main {  
    public static void main (String [] args) {  
        int n;  
        System.out.println(sqrt (n));  
    }  
}
```

10. Leap year:

```
class Main {  
    public static void main (String [] args) {  
        int n;  
        if (n % 4 == 0) {  
            System.out.println ("leap year");  
        } else {  
            System.out.println ("not");  
        }  
    }  
}
```

11. number divisible by 5 and 7:

```
class Main {  
    public static void main (String [] args) {  
        int n;  
        if n % 5 == 0 and if n % 7 == 0 {  
            System.out.println ("divisible");  
        }  
    }  
}
```

```
        else:  
            System.out.println("not");
```

}

}

128. Decimal to binary:

```
import java.util.*;
```

```
class Main{
```

```
    public static void main(String[] args){
```

```
        int decimal = 45;
```

```
        String binary = binaryToDecimal(decimal);
```

```
        System.out.println(binary);
```

}

}

134. Binary to decimal:-

```
import java.util.*;
```

```
class Main{
```

```
    public static void main(String[] args){
```

```
        String binary = "10010";
```

```
        int decimal = binaryToDecimal(binary);
```

```
        System.out.println(decimal);
```

}

}

14 Celsius to Fahrenheit:-

```
class Main {
```

```
    public static void main(String[] args) {
```

```
        double celsius = 20.0;
```

```
        double fahrenheit = (celsius * 1.8) + 32;
```

```
        System.out.println("Celsius " + celsius + " is " + fahrenheit);
```

}

}

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Fahrenheit to Celsius:-

```
class Main {
```

```
    public static void main(String[] args) {
```

```
        double fahrenheit = 68.0;
```

```
        double celsius = (fahrenheit - 32) * 0.556;
```

```
        System.out.println("Fahrenheit " + fahrenheit + " is " + celsius + " Celsius");
```

```
    }
```

}

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GCD

```
class Main {
```

```
    public static void main(String[] args) {
```

```
        int a, b, gcd;
```

```
        if (b == 0) {
```

```
            return a;
```

```
        return gcd(b, a % b);
```

}

```
        int num1 = 30, num2 = 20;
```

put result = gcd (num1, num2);

System.out.println(result);

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Lcm

class main{

public static int LCM (int a, int b) {

int a, b;

if (b == 0) {

return a;

}

return gcd (b, a % b);

}

public = static int LCM (int a, int b) {

return (a * b) / gcd (a, b);

public static void main (int n1, int n2);

System.out.println(LCM (n1, n2));

}

18. Perfect number.

class main{

public static void main (String[] args) {

long n, sum = 0;

int i = 1;

while (i <= n / 2)

{

if (n % i == 0)

```
    sum = sum + i;
```

```
}
```

```
i++;
```

```
if (sum == n)
```

```
System.out.println("perfect");
```

```
else
```

```
System.out.println("not");
```

```
}
```

```
}
```

a Happy number:-

```
class Main
```

```
public static void main (String [] args){
```

```
int r = 0, s = 0;
```

```
int num;
```

```
while (num > 0){
```

```
r = num % 10;
```

```
s = s + (r * r);
```

```
num /= 10;
```

```
}
```

```
return sum;
```

```
if (r == -1)
```

```
System.out.println("happy number");
```

```
else
```

```
System.out.println("not");
```

```
}
```

```
}
```

20. sum of odd number.

class Main {

public static Main (String [] args) {

int i, sum = 0;

int n;

for (i = 1; i <= n; i += 2) {

i + (i % 4 == 1)

sum = sum + i;

else

sum = sum - i;

System.out.println(sum);