

```
/* Enter your code here. Read input
System.out.println("*****");
System.out.println(" * ");
System.out.println(" * ");
System.out.println(" * ");
System.out.println(" * ");
```

```
Scanner scn = new Scanner(System.in);
int n = scn.nextInt();
if(n%3 == 0 && n%4==0){
    System.out.println("Divisible by 3 and 4");
}else{
    System.out.println("Not Divisible");
}
```

Humans and Aliens

locked

Problem Submissions Leaderboard Discussions

Take in the count of aliens and humans as integer inputs and then,
If the count of humans is zero then print "Humans vanished".
or If the count of humans is less than aliens, then aliens remaining = aliens - humans
or if the count of humans is equal to greater than aliens, then print "Humans are living"

And in the end after checking the above conditions(whether any condition matches or not),you also have to print the final count of the aliens remaining in the next line.

Sample Input 0

200
10

Sample Output 0

Humans are living
10

Scanner scn = new Scanner(System.in);
int human = scn.nextInt(); } → 200 ✓ 50
int aliens = scn.nextInt(); } → 10 ✓ 120

if(human == 200 >= 0)
 System.out.println("Humans vanished"); ✗
else if(human < aliens) { 200 < 10 50 < 120
 aliens = aliens - human; → alien = 120 - 50 = 70
else if(human >= aliens) { 200 > 10
 System.out.println("Humans are living"); ✗
}

System.out.println(aliens);

Memory
human = 50
Aliens = 120
70

⇒ 70

human = 0 } → Humans vanished
Aliens = 15 } 15;

```

Scanner scn = new Scanner(System.in);
int number = scn.nextInt();
System.out.println(number % 100);

```

Running a loop with "char" datatype

print a to z

Problem Submissions Leaderboard Discussions

You have to print characters from a till z where each character should be printed in a separate line.

```

for (char ch = 'a' ; ch <= 'z' ; ch++)
    print (ch),
]

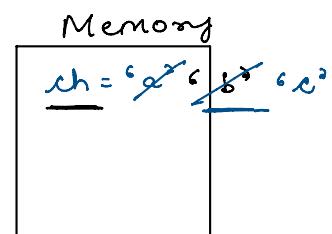
```

$$\begin{aligned}
 & \text{ch} = \underline{\underline{a}} + 1 \\
 & \text{ch} = \underline{\underline{b}} + 1 = 98
 \end{aligned}$$

```

for(char ch = 'a' ; ch <= 'z' ; ch++){
    System.out.println(ch);
}

```



Output

'a'
'b'
'c'
:
'z'

$$\begin{aligned}
 & \text{ch} = \underline{\underline{a}} + 1 \\
 & \text{ch} = \underline{\underline{b}} + 1 = 98 \\
 & \text{ch} = \underline{\underline{c}} + 1 = 99
 \end{aligned}$$

Print a, B, c, D, e, F, g..... 26 characters

Problem Submissions Leaderboard Discussions

Print a, B, c, D, e, F, g..... 26 characters where each character should be printed in a separate line.

Print a, B, c, D, e, F, g..... 26 characters

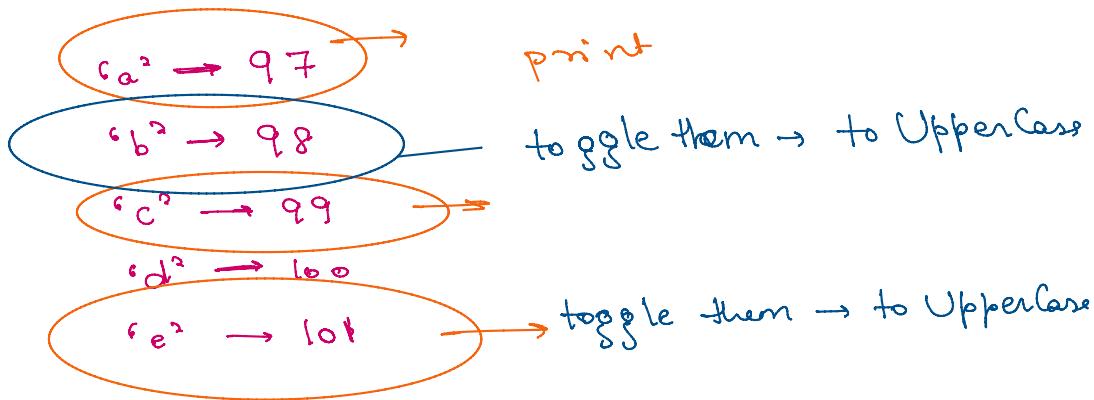
Problem

Submissions

Leaderboard

Discussions

Print a, B, c, D, e, F, g..... 26 characters where each character should be printed in a separate line.



ASCII Table



Code Char	Code Char	Code Char	Code Char
0 NUL (null)	32 SPACE	64 @	96 `
1 SOH (start of heading)	33 !	65 A	97 a
2 STX (start of text)	34 *	66 B	98 b
3 ETX (end of text)	35 #	67 C	99 c
4 EOT (end of transmission)	36 \$	68 D	100 d
5 ENQ (enquiry)	37 %	69 E	101 e
6 ACK (acknowledge)	38 &	70 F	102 f
7 BEL (bell)	39 '	71 G	103 g
8 BS (backspace)	40 (72 H	104 h
9 TAB (horizontal tab)	41)	73 I	105 i
10 LF (NL line feed, new line)	42 *	74 J	106 j
11 VT (vertical tab)	43 +	75 K	107 k
12 FF (NP form feed, new page)	44 ,	76 L	108 l
13 CR (carriage return)	45 -	77 M	109 m
14 SO (shift out)	46 .	78 N	110 n
15 SI (shift in)	47 /	79 O	111 o
16 DLE (data link escape)	48 0	80 P	112 p
17 DC1 (device control 1)	49 1	81 Q	113 q
18 DC2 (device control 2)	50 2	82 R	114 r
19 DC3 (device control 3)	51 3	83 S	115 s
20 DC4 (device control 4)	52 4	84 T	116 t
21 NAK (negative acknowledgement)	53 5	85 U	117 u
22 SYN (synchronous idle)	54 6	86 V	118 v
23 ETB (end of trans. block)	55 7	87 W	119 w
24 CAN (cancel)	56 8	88 X	120 x
25 EM (end of medium)	57 9	89 Y	121 y
26 SUB (substitute)	58 :	90 Z	122 z
27 ESC (escape)	59 ;	91 [123 {
28 FS (file separator)	60 <	92 \	124
29 GS (group separator)	61 =	93]	125 }
30 RS (record separator)	62 >	94 ^	126 ~
31 US (unit separator)	63 ?	95 _	127 DEL

for → i=97 → 122

if (i%2 == 0)

System.out.println

(Character.toUppercase(chari))

else — odd

print

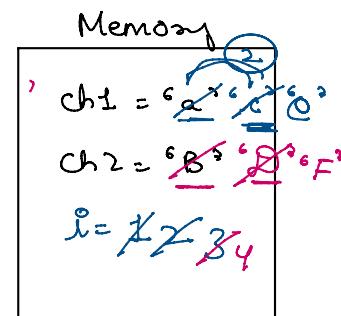
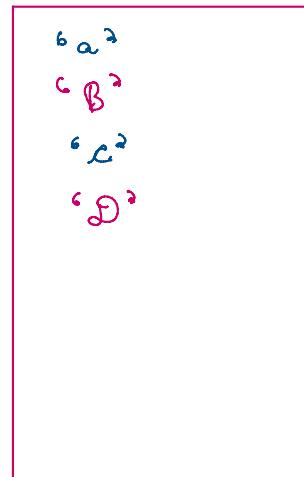
(Character.toLowerCase(chari));

```
for(int i = 97 ; i<=122; i++){
    if(i%2 == 0){
        System.out.println(Character.toUpperCase(chari));
    }else{
        System.out.println(Character.toLowerCase(chari));
    }
}
```

```

char ch1 = 'a'; ✓
char ch2 = 'B'; ✓
for(int i = 1 ; i <=26 ; i++){
    if(i%2 == 0){ ✓
        System.out.println(ch2);
        ch2+=2; ✓
    }else{ ✓
        System.out.println(ch1);
        ch1+=2;
    }
}

```



Print a, c, e... till the characters are less than z

Problem Submissions Leaderboard Discussions

Input Format

No input will be given

```

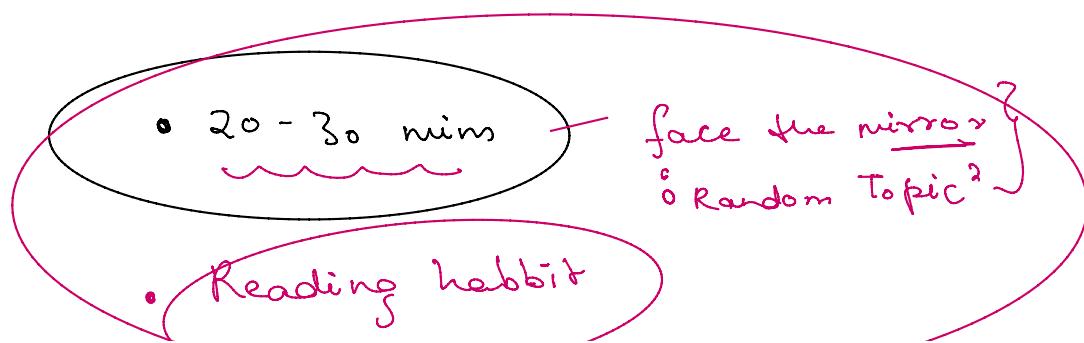
for( ch = 'a'    ch < 'z'    ch+=2)
    print( ch);

```

```

for(char ch = 'a' ; ch < 'z'; ch+=2){
    System.out.println(ch);
}

```



• Reading habit

Print z, y, x.... till 26 characters

Problem

Submissions

Leaderboard

Discussions

Input Format

No input will be given

```
for(char ch = 'z' ; ch>='a' ; ch--) {
    System.out.println(ch);
}
```

Print "even" or "odd" from a list of integers

Problem

Submissions

Leaderboard

Discussions

First take n as an integer input.

Then you will be given n integers as integer inputs and each time you have to print "even" if the number is an even number and "odd" if the number is an odd number.

Scanner → int n → input
for (int i=1 to n)
 int n → scn.nextInt(); → input
 if (n%2 == 0) {
 print even
 } else print odd

Sample Input 0

3
10
13
14
n
will be taken inside for loop

Sample Output 0

even
odd
even

Scanner class

int n = scn.nextInt → 3

Running a loop → 3 times

```
for (i → 3)
    ↳ int num = scn.nextInt();
        if (num % 2 == 1)
            print odd
        else print even
```

```
Scanner scn = new Scanner(System.in);
int n = scn.nextInt();
for(int i = 1; i ≤ 5; i++) {
    int num = scn.nextInt();
    if(num%2 == 0) {
        System.out.println("even");
    }else{
        System.out.println("odd");
    }
}
```

Output

even
odd
even
odd
even

Mémo

n = 5 ✓
num = 10 ✓ 15 ✓ 20 ✓ 25 ✓ 30 ✓
i = ✗
2
4 5

Print Alternate Elements of a String

Problem Submissions Leaderboard Discussions

Take a String str as input and print the alternate elements of the given string.

Note: All character values are present in the string.

length() = 8
Geek Step
↑

Str.length - !
8 - 1

str → scn.nextLine

```
for (int i=0; i ≤ str.length() - 1 ; i+=2)
    i < str.length() ; i+=2
```

print (str.charAt(i));

0 1 2 3 4 5 6 7 8 → str.length()
Beautiful → 9

Scanner scn = new Scanner(System.in);
 String str = scn.nextLine();
 for(int i = 0 ; i < str.length() ; i+=2){
 System.out.print(str.charAt(i));
 }

$i < 9$
 $i < \text{str.length}()$
 $i = 0 - 8$
 $i < 9 = = i \leq 8$
 \checkmark

$i < 9$
 $i \leq 8$
 \checkmark

$i \leq \text{str.length} - 1$
 $i \leq 8$

Memory
 Str = Beautiful
~~i = 0 1 2 3 4 5 6 7 8~~
 10

"B atf l"

Reverse The String

Problem Submissions Leaderboard Discussions

Take a String str as input and reverse the string without using any inbuilt function.

```

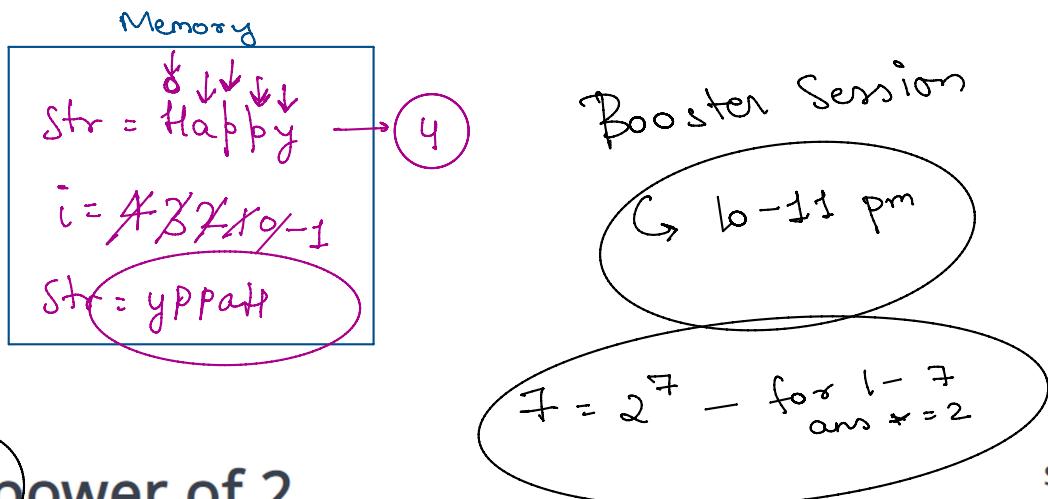
for( i= str.length-1 ; i>0 ; i-- )
    print (str.charAt(i));
  
```

$\xrightarrow{\text{left to right}}$
 $i++$
 $\xleftarrow{\text{right to left}}$
 $i--$

Scanner scn = new Scanner(System.in);
 String str = scn.nextLine();
 for(int i = str.length() - 1 ; i >= 0 ; i--){
 System.out.print(str.charAt(i));
 }

$i > 0$
 $i >= 0$
 $i --$
 method
 method

Memory
~~8 7 6 5 4 3 2 1~~
 1 in session



nth power of 2

Problem Submissions Leaderboard Discussions

Take n as an integer input and you have to print the nth power of 2 as an integer output.



$2^5 = 2 * 2 * 2 * 2 * 2$

$2^1 = 2 \rightarrow 2^2 = 4 \dots$

$\text{int ans} = 1;$ $\rightarrow \text{Identity}$

for ($\text{int } i=1 ; i \leq n ; i++$)

$\text{mul/div} = 1$

$\text{addition/sub} = 0$

$1 \times 2 \times 2 \quad \text{for } (1 \rightarrow 5)$

$\underline{\text{ans}} * 2$

Whenever you have any multiplication/ division just assign the value of $\underline{\text{ans}} = 1$

Whenever you have any addition/ subtraction just assign the value $\underline{\text{ans}} = 0$

Sample Input 0

0

Sample Output 0

1

Sample Input 1

1

Sample Output 1

2

$$\begin{aligned} 0 + 9 &= 0 \\ 0 * 5 &= 0 \\ 1 * 5 &= 5 \end{aligned}$$

$$1 * 7 = 7$$

$$\begin{aligned} 0 - &= -3 \\ 0 - 5 &= -5 \\ 0 + 5 &= 5 \\ 0 + 7 &= 7 \end{aligned}$$

```

Scanner scn = new Scanner(System.in);
int n = scn.nextInt(); //  $2^n$ ; = 6
int ans = 1;
if(n == 0){
    System.out.println(1);
} else {
    for(int i = 1; i <= n; i++){
        ans *= 2;
    }
    System.out.println(ans); → 64
}

```

for - loop

```

Scanner scn = new Scanner(System.in);
int n = scn.nextInt();
int ans = (int) Math.pow(2, n); → inbuilt method
System.out.println(ans);

```

Memory

$$n = 6$$

$$\begin{array}{r} \cancel{1} \cancel{2} \cancel{4} \cancel{8} \cancel{16} \cancel{32} \cancel{64} \\ \hline \cancel{1} \cancel{2} \cancel{4} \cancel{8} \cancel{16} \end{array}$$

$$\left. \begin{aligned} 2^6 &= 2^3 * 2^3 \\ &= 8 * 8 \\ &= 64 \end{aligned} \right\}$$