

Question **1**

Correct

A year Y will be passed as input. The program must find if the given year is a leap year or not.

- If it is leap year, the program must print yes else it should print no

Note: A year is a leap year if it is divisible by 4. If it is a century, then it should be divisible by 400.

The **pseudocode** is as given below:

```
if year is divisible by 400 then is_leap_year
else if year is divisible by 100 then not_leap_year
else if year is divisible by 4 then is_leap_year
else not_leap_year
```

Example Input/Output:

If 2000 is the input, the program must print yes

If 2100 is the input, the program must print no

If 2013 is the input, the program must print no

Input Format:

A year as a number is passed to the standard input.

Output Format:

The string value as per the conditions above printed to the standard output.

Boundary Conditions:
$$0 < Y \leq 8000$$

Input:

1980

Expected Output:

yes

For example:

| Input | Result |
|-------|--------|
| 1980 | yes |

Answer: (penalty regime: 0 %)

```
1  #include<stdio.h>
2  int main(){
3  int year;
4  scanf("%d",&year);
5  if(year % 400==0)
6  printf("yes");
7  else if(year %100==0)
8  printf("no");
9  else if(year %4==0)
10 printf("yes");
11 else
12 printf("no");
13 return 0;
14 }
15
```



| | Input | Expected | Got | |
|---|-------|----------|-----|---|
| ✓ | 1980 | yes | yes | ✓ |

Passed all tests! ✓

Question **2**

Correct

An expression E is passed as an input to the program. The expression will contain three numbers A, B and C, one equal symbol and one of the mathematical operators + - * /

But the given mathematical operator is incorrect and hence the expression is not valid. Hence the program must identify the correct operator and print that as the output.

Input Format:

First line will contain the expression E

Output Format:

First line will contain the correct mathematical operator

Sample Input/Output:**Example 1:**

Input:

5-4=20

Output:

*

Explanation:

Only 5 multiplied with 4 gives 20. Hence - must be replaced with *.

Example 2:

Input:

999+9=111

Output:

/

Explanation:

Only 999 divided by 9 gives 111. Hence + must be replaced with /.

For example:

| Input | Result |
|-----------|--------|
| 5-4=20 | * |
| 999+9=111 | / |

Answer: (penalty regime: 0 %)

```

1  #include<stdio.h>
2  int main() {
3      int a,b,c;
4      char ch;
5      scanf("%d%c%d=%d", &a,&ch,&b,&c);
6      if(a+b==c)
7          printf("+");
8      else if(a-b==c)
9          printf("-");
10     else if(a*b==c)
11         printf("*");
12     else
13         printf("/");
14     return 0;
15 }
```

| | Input | Expected | Got | |
|---|-----------|----------|-----|---|
| ✓ | 5-4=20 | * | * | ✓ |
| ✓ | 999+9=111 | / | / | ✓ |

Passed all tests! ✓

