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|------------------|----------------------------------|
| <b>Status</b>    | Finished                         |
| <b>Started</b>   | Monday, 3 November 2025, 6:20 PM |
| <b>Completed</b> | Monday, 3 November 2025, 6:30 PM |
| <b>Duration</b>  | 9 mins 22 secs                   |

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 y;
4      scanf("%d",&y);
5      if((y%400==0)|| (y%4==0 && y%100!=0))
6          printf("yes");
7      else
8          printf("no");
9      return 0;
10 }
```

|   | 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,c,r;
4      char op,eq;
5      scanf("%d %c %d %c %d",&a,&op,&c,&eq,&r);
6      if(a+c==r)printf("+");
7      else if(a-c==r)printf("-");
8      else if(a*c==r)printf("*");
9      else if(a/c==r)printf("/");
10     return 0;
11 }
```

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

Passed all tests! ✓