

5.1.1 check leap year

A) Algorithm: Check Leap Year

Step 1: Start
Step 2: Input the year and store it in variable year
Step 3: Check if $(\text{year} \% 400 == 0)$
 If condition is true, then go to Step 6
Step 4: Else check if $(\text{year} \% 4 == 0 \text{ AND } \text{year} \% 100 != 0)$
 If condition is true, then go to Step 6
Step 5: Else print "Not a leap year" and go to Step 7
Step 6: Print "Leap year"
Step 7: Stop

B) code

```
year=int(input().strip())
if(year % 400 == 0) or (year % 4 == 0 and year % 100 != 0):
    print("Leap year")
else:
    print("Not a leap year")
```

C) output

The screenshot shows a web-based IDE interface for CodeTANTRA. The title bar says "CODETANTRA" and "5.1.1. Leap Year Checker". The main area has a dark theme with light-colored code blocks. On the left, there's a sidebar with sections for "Input Format" and "Output Format". "Input Format" says "A single line contains an integer representing the year." "Output Format" says "Print "Leap year" if it is a leap year. Otherwise, print "Not a leap year.". At the bottom left is a "Sample Test Cases" button. On the right is a code editor window titled "leapYear.py" containing the provided Python code. The code uses standard Python syntax for reading input, performing modulus operations, and using an if-else conditional statement with print statements. The code editor has a status bar at the bottom with tabs for "Terminal" and "Test cases", and buttons for "Submit", "Reset", "Prev", "Next", and "Logout".

```
1 year=int(input().strip())
2 v if(year % 400 == 0) or (year % 4 == 0 and year % 100
3 != 0):
4     print("Leap year")
5 else:
6     print("Not a leap year")
```

D) flowchart

