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Question:

RIL JIO is planning to setup a secure password for his customer account. For a password to be secure the following conditions should be satisfied:

- Password must contain at least one lower case letter [a-z] [a–z]
- Password must contain at least one upper case letter [A-Z] [A–Z] strictly inside, i.e., not as the first or the last character.
- Password must contain at least one digit [0-9][0–9] strictly inside
- Password must contain at least one special character from the set {{'@', '#', '%', '&', '?'}} strictly inside.
- Password must be at least 1010 characters in length, but it can be longer.
- RIL JIO has generated several strings and now wants you to check whether the passwords are secure based on the above criteria. Please help RIL JIO in doing so.

Input

First line will contain TT, number of test cases. Then the test cases follow. Each test case contains of a single line of input, string SS.

Output

For each test case, output in a single line "YES" if the password is secure and "NO" if it is not.

Constraints

1≤|S|≤20 All the characters in S are one of the following: lower case letters [a-z] [a–z], upper case letters [A-Z][A–Z], digits [0-9][0–9], special characters from the set { '@', '#', '%', '&', '?' }

Code:

```java
import java.util.Scanner;

public class A2 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.println(x: "Enter the number of test cases: ");
        int numTestCases = input.nextInt();

        input.nextLine(); // consume the remaining newline character

        for (int i = 0; i < numTestCases; i++) {
            System.out.println("Enter password for test case " + (i + 1) + ":");
            String password = input.nextLine();

            boolean condition1 = false;
            boolean condition2 = false;
            boolean condition3 = false;
            boolean condition4 = false;
            boolean condition5 = false;

            if (password.length() >= 10) {
                condition5 = true;
                for (char ch : password.toCharArray()) {
                    if (Character.isLowerCase(ch)) {
                        condition1 = true;
                    } else if (Character.isUpperCase(ch)) {
                        condition2 = true;
                    } else if (Character.isDigit(ch)) {
                        condition3 = true;
                    } else if (ch == '@' || ch == '#' || ch == '%' || ch == '&' || ch == '?') {
                        condition4 = true;
                    }
                }
            }

            if (condition1 && condition2 && condition3 && condition4 && condition5) {
                System.out.println(x: "YES");
            } else {
                System.out.println(x: "NO");
            }
        }
    }
}
```

Output:

```
Windows PowerShell
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PS C:\Users\rohit\Documents\ds> & 'C:\Program Files\Java\jdk-19\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\rohit\AppData\Roaming\Code\User\workspaceStorage\2c50ae6071b96585c0f639ba461ec1ba\redhat.java\jdt_ws\ds_56f32de\bin' 'A2'
Enter the number of test cases:
2
Enter password for test case 1:
Password456@
YES
Enter password for test case 2:
```

Repository:

https://github.com/kotarohs/java.git