

## 109HW3\_B: LET'S MAKE XML GREAT AGAIN!

Let's make XML great again, whatever.

Please write a Lex/Yacc program to compute the output.

### Input Format:

a **Tag**.

### Output Format:

the **value** of the **Tag** in the input (either "**true**" or "**false**"), with a **newline** ('\n').

A **Tag** may be a **Paired Tag** or a **Self-Closing Tag**.

A **Paired Tag** is composed of:

- a **Start Tag**, which is composed of:
  - <
  - **tag name** (any one of: **and**, **or**, **not**)
  - >
- **Sub Tags**: **ANY** number of **Tag(s)**, *no more than 10*, the **depth** of **Tag** is also *no more than 10*
- an **End Tag**, which is composed of:
  - <
  - /
  - **tag name** (always same as the corresponding **Start Tag**)
  - >

A **Self-Closing Tag** is composed of:

- <
  - **tag name** (any one of: **true**, **false**)
  - /
  - >
- 
- **Value of a Tag**:
    - The **value** of <**true**/> is **true**, the value of <**false**/> is **false**.
    - Given *value1, value2, ..., valueN* as the **values** of the **Sub Tags** of a **Paired Tag**, the **value** of that **Paired Tag** is:

tag name	value	value (if N=0)	value (if N=1)
<b>and</b>	<i>value1 &amp;&amp; value2 &amp;&amp; ... &amp;&amp; valueN</i>	<b>true</b>	<i>value1</i>
<b>or</b>	<i>value1    value2    ...    valueN</i>	<b>false</b>	<i>value1</i>
<b>not</b>	<i>!value1</i>	<i>(always 1 Sub Tag)</i>	

Example Input 1:

```
<and>
  <true/>
  <false/>
  <true/>
</and>
```

Example Output 1:

false

Example Input 2:

```
<or>
  <and>
    <false/>
    <or>
      <false/>
      <true/>
    </or>
  </and>
  <true/>
</or>
```

Example Output 2:

true

Example Input 3:

```
<false/>
```

Example Output 3:

false

Example Input 4:

```
<and>
  <true/>
</and>
```

Example Output 4:

true

Example Input 5:

```
<or>
</or>
```

Example Output 5:

false