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CS 536 HW2

**Question 1**

{SLASH}{STAR}([^\*]\*{STAR}+[^\*/])\*{STAR}+{SLASH}

* Comment cannot start with a star when it should be able to.
* **Example:** /\*\*\*x\*\*/ should be accepted but it is not.
* **Example:** /\*\*Hello\*\*/ should be accepted but it is not.

{SLASH}{STAR}([^\*]|[^/])+{STAR}{SLASH}

* Doesn’t allow empty comments since + is used on whole middle of comment. Also wrongly allows \*/ in the comment body because | is used.
* **Example:** /\*\*/ is not allowed but it should be.
* **Example:** /\* /\* \*/ is allowed but shouldn’t be.

{SLASH}{STAR}(.)\*{STAR}{SLASH} :

* It allows anything to become inside of a comment, including \*/. Also does not account for newlines.
* **Example**: /\* /\* \*/ would be counted as one comment even though this is not allowed.
* **Example**: /\* NEWLINE \*/ would not be counted (assuming NEWLINE represents the newline char).

{SLASH}{STAR}([^\*]|({STAR}+[^\*/]))\*{STAR}+{SLASH}

* Allows one to write \*/ inside of the comment and still count it as one.
* **Example:** /\*\*/\*/

{SLASH}{STAR}[^(\*/)]\*{STAR}{SLASH}

* Does not work if you have parentheses, forward slashes, or stars in your comment. Inside the brackets, () are taken as literals as well as \* and /.
* **Example:** /\*()/\*\*/ is not accepted but should be.

**Question 2**

SLASH = [/]

STAR = [\*]

NL = [\n]

HASH = [#]

**Pattern**: ({HASH}|({SLASH}{SLASH}))[^{NL}]\*{NL}