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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}