Regular Expression Notes

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**Flags**

i = ignore case

s = . matches everything, including newline

m = multiline (modifies only ^ and $)

**Character Classes**  
. = any character that isn’t newline

[] = custom class

Inside character class:

- = range (if not first, ex: [A-Z])

^ = not (if first, negates the whole character class, ex: [^w])

\w = [A-Za-z0-9\_], built in character class, used to find variable names

\d = [0-9]

\s = whitespace

**Quantifiers**

? = placed after token, either 0 or 1 occurrences, if placed after a quantifier, then makes it ungreedy

\* = any amount, including 0

+ = any amount, NOT including 0

{} = custom quantifier

4 types of custom quantifiers

* {5} matches exactly 5
* {2, 3} matches 2 or 3
* {2, } matches 2 or more
* {, 3} matches 3 or less

**Anchors** (do not munch)

^ = beginning of string (or line with flag “m”)

$ = end of string (or line with flag “m”

\b = word boundary (“space” between \w character and non \w character)

**Back Reference**

/\b(\w)\w\*\1\b/, back references are ordered based on order of left parenthesis

**Lookarounds**

(?=\_\_\_) = look ahead

(?!\_\_\_) = negative look ahead

(?<=\_\_\_) = look behind

(?<!\_\_\_) = negative look behind

Lookarounds don’t capture for backreferences (so don’t count for back references).

Example: find any word before “girl”

Regex: /\w+(?=\sgirl)/

Example: any word after “the”

Regex: /(?<=\bthe\s)\w+/

Example: any word without “e”

Regex: /\b(?!\w\*e)\w+\b/

Example: any word starts and ends with different letters

Regex: /\b(\w)(?!\w\*\1\b)\w\*+/

Weird solution (but useful for other problems): /\b(?=(\w)+\b)(?!\1)\w+/, since the \1 does not refer to the first parenthesis.

Example: any word with at least two distinct characters that both occur at least twice

/\b\w\*(\w)(?=\w\*\1)\w\*(?!\1)(\w)(?=\w\*\2)\w\*/

# Question 1

Write your regular expression here:

/win/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

Regular expressions have a / at the start and end.

# Question 2

Write your regular expression here:

/wh/i

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

Flags are placed on the outside of the regular expression to modify behavior. “i” means ignore case.

# Question 3

Write your regular expression here:

/w|dined/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

| means or.

# Question 4

Write your regular expression here:

/it|of|up|if|in/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

| can be used for multiple regular expressions.

# Question 5

Write your regular expression here:

/e.e/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

. = any character that is not newline

# Question 6

Write your regular expression here:

/..l/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

If two regular expressions overlap, then only the first one is taken because regex “munches” the letters it processes.

# Question 7

Write your regular expression here:

/i.?e/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 8

Write your regular expression here:

/in.?.?.?d/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

Regular expressions are greedy by default so always maximize length of expression.

# Question 9

Write your regular expression here:

/w.\*in.\*d/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 10

Write your regular expression here:

/the.\*y/s

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 11

Write your regular expression here:

/w.\*?in.\*?d/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 12

Write your regular expression here:

/the.\*?y/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 13

Write your regular expression here:

/the.+?y/s

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 14

Write your regular expression here:

/a.+?b|b.+?c|c.+?d|d.+?e/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 15

Write your regular expression here:

/[wd]ine?d/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 16

Write your regular expression here:

/[aeiou][aeiou]/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 17

Write your regular expression here:

/^[while “end.”]+/im

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 18

Write your regular expression here:

/[the downtrodden]\*..?$/m

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 19

Write your regular expression here:

/\w\*[aeiou][aeiou]\w\*/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 20

Write your regular expression here:

/\w+[.,?”]/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 21

Write your regular expression here:

/\w\*?a.\*?e.\*?i.\*?o.\*?u\w\*/si

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 22

Write your regular expression here:

/\bw\w{3,}/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 23

Write your regular expression here:

/\b[wdien]+\b/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 24

Write your regular expression here:

/[wdien]+/

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 25

Write your regular expression here:

/\w\*[qwrtypsdfghjklzxcvbnm]\w\*[qwrtypsdfghjklzxcvbnm]\w\*/i

Explain any new techniques learned from this question here:

# Question 26

Write your regular expression here:

/\b[1-9]\d\*[02468]\b|\b[2468]\b/

Explain any new techniques learned from this question here:

# Question 27

Write your regular expression here:

/\b[1-5]?\d\b|\b6[0-3]\b/

Explain any new techniques learned from this question here:

# Question 28

Write your regular expression here:

Explain any new techniques learned from this question here:

# Question 29

Write your regular expression here:

/\w\*n\w\*d\w\*[.,?”]?\s+\w\*n\w\*d\w\*/si

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here:

# Question 30

Write your regular expression here:

/\w\*w[^w]\*?w\w\*/i

Highlight the matches on this text:

While inside they wined and dined, safe from the howling wind.

And she whined, it seemed, for the 100th time, into the ear of her friend,

"Why indeed should I wind the clocks up, if they all run down in the end?"

Explain any new techniques learned from this question here: