Visit the following URL for some regular expression practice or "regex play"

http://cs.wheatoncollege.edu/regexplay

Each regular expression will be matched against every word in the "dictionary", a file called big_english.txt, a somewhat eclectic collection of approximately 235,000 words. (Note: rather than using the .cgi at the website above, students could write a script to use a loop to apply each regex to each word in the file.)

Note: If you ever listen to National Public Radio (NRP) on Sunday mornings (Weekend Edition), you've likely heard Will Shortz' seven-minute feature where he (the "Puzzle Master") challenges readers with word puzzles. Mason Brown, former Wheaton College Reference Librarian, and I have pored over two of Will's books to find puzzles that can be solved by one regexes (or sometimes two regexes in combination).

(0) From Shortz (1996), **#44 "On the Money."** The currency name MARK is hidden in the word REMARKABLE, and RAND is hidden in GRANDMA. What common words does DINAR appear in?

Your regex:

(Some of) The answer(s):

(1) From Shortz (1996), **#162 "Salty Language."** There are common words in the English language that contain the consecutive letters N-A-C-L. Name any three of them.

Your regex:		

(Some of) The answer(s):

(2) From Shortz (1996), **#152 "Two-Tone."** Quickly now ... name a common English word that contains the consecutive letter combination T-A-N-T-A-N.

Your regex:

(Some of) The answer(s):

(3) From Shortz (20	003), #124 "D-Plus."
If you were ask	ed to name a familiar word that contains two S's, followed by
another letter, a	ind then two more S's, you might say ASSESSOR. What
common word o	contains two D's, followed by another letter, and then two more
D's?	
Your regex:	
The answer:	

(4) From Shortz (1996), #38 Vowel Play." (slightly modified) There's a well-known old puzzle to name words that contains the vowels A, E, I, O, and U in order (and only one of each vowel). What are they?

The answer:

(5) From Shortz (1996), **#76 Telephone Word.**" (modified)

In an earlier time, you could use the number pad on your phone to enter "text" messages. Most number-keys on a cell phone referred to three or more letters, e.g., (2) ABC. New entering schemes eventually emerged, such as T-9, which stood for *Text on 9 keys*:

T-9's objective was to make it easier to type text messages. It allowed words to be entered by a single keypress for each letter, as opposed to the multi-tap approach used in the older generation of mobile phones in which several letters are associated with each key, and selecting one letter often required multiple keypresses. <u>It combined the groups of letters on</u> <u>each phone key with a fast-access dictionary of words. It looks up in the dictionary all</u> <u>words corresponding to the sequence of keypresses</u>. (wikipedia.com)

What words can the following phone number 666-7666 spell?

Your regex:

The answer:

Your regex:	
Tour regent	
The answer:	
(7) Assuming a the appropria your left hand	regular keyboard and that you are using your left hand fingers on <i>onl</i> te "left-hand" keys, what is the longest word you can type with only d?
Your regex:	
Your regex: The answer:	
Your regex: The answer:	
Your regex: The answer: (8) Assuming ye hand" keys, w	ou are using your right hand fingers on <i>only</i> the appropriate "right- what is the longest word you can type with only your right hand?
Your regex: The answer: (8) Assuming ye hand" keys, y Your regex:	ou are using your right hand fingers on <i>only</i> the appropriate "right- vhat is the longest word you can type with only your right hand?
Your regex: The answer: (8) Assuming ye hand" keys, w Your regex: The answer:	ou are using your right hand fingers on <i>only</i> the appropriate "right- what is the longest word you can type with only your right hand?
Your regex: The answer: (8) Assuming ye hand" keys, w Your regex: The answer: (9) Are there an	ou are using your right hand fingers on <i>only</i> the appropriate "right- what is the longest word you can type with only your right hand?

(10) How many words end in "dous"?

Your regex:

The answer:

T 7	
Your regex:	
The answer:	
(12) What is the lon (that is, middle	ngest word that can be typed with only the letters on the entire hom) row of the Dvorak keyboard? (Yeah, you'll have to look that up).
Your regex:	
The answer:	
(13) Are there any a letter that is n	words in English where the letter 'q' is not immediately followed b ot a 'u' ?
Your regex:	
The answer:	
The answer: (14) Are there any the word?	words in which a sequence of three (3) letters is repeated elsewhere
The answer: (14) Are there any the word? Your regex:	words in which a sequence of three (3) letters is repeated elsewhere

(15) Are there any v gaps) at least tw	vords in which a sequence of two letters is directly repeated (with n o more times in the word?
Your regex:	
The answer:	
(16) Are there any w the same as the	vords in which the first three letters of the beginning of a word are reverse of those letters at the end of the word?
Your regex:	
The answer:	
(17) Are there any p palindrome in th	balindromes of length six? Of length seven? What is the longest his dictionary?
Your regex:	
The answer:	

References

LeBlanc, M.D. and Dyer, B.D. (2007). Perl for Exploring DNA. Oxford University Press.

- Shortz, Will (1996). <u>The Puzzle Master Presents: 200 Mind-Bending Challenges</u>. Random House.
- Shortz, Will (2003). <u>The Puzzlemaster Presents: Will Shortz's Best Puzzles from NPR</u>. Volume 2. Random House.

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