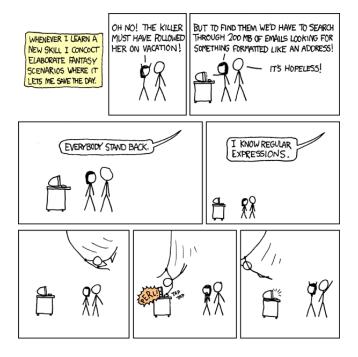
CSE Cracks	Regular Expressions	20XX
Name:		
Student ID:		
This quiz is open the re standard li	note, open book, and open world. Assume all regular expressions are done in brary. Good luck!	Python using
	I acknowledge that I have neither given nor received inappropriate help on the letter and spirit of the University of California, Santa Cruz Code of Acadexam.	
Signature:		
needed space outs	low if you believe your exam may require manual grading, e.g., you crossed of ide a designated answer box. m may require manual grading.	out answers or

Question 1 [Ice Breaker] (5 Points)

Taking inspiration from the XKCD comic below, how would you save the day using regular expressions?



Place your answer within the boxed region below.

Question 2 [Regular Expression in Programming Languages] (5 Points)

Regular expressions are implemented as either a core feature or in the standard library of almost every major programming language.

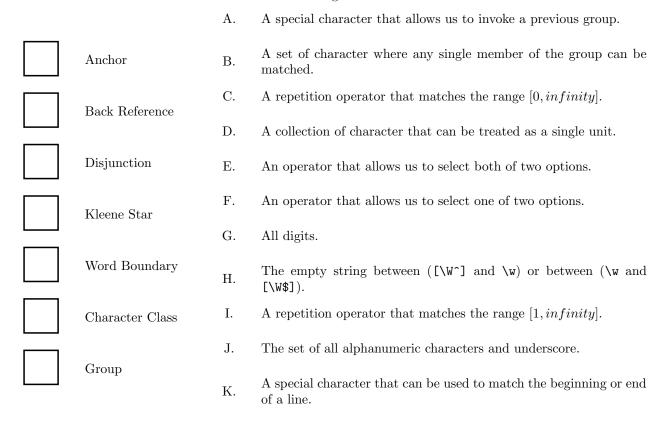
Fill in the circle that corresponds to your answer.

TrueFalse

Question 3 [Regular Expression Vocabulary] (20 Points)

Match the following terms to their corresponding definitions.

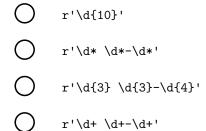
Fill in the each box on the left with a letter from the right.



Question 4 [Basic Regular Expressions] (5 Points)

Which of the following regular expressions would be best to match a 10-digit phone number formatted as: '123 456-7890'. (Assume any stretch of continuous whitespace is a single space character.)

Fill in the circle that corresponds to your answer.



Below is the opening paragraph (which is actually just one sentence) from A Tale Of Two Cities written by Charles Dickens. Future questions may reference this passage as "the provided passage".

"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way — in short, the period was so far like the present period, that some of its noisiest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only."

Question 5	[Passage	e Search] (10 Points)						
In the provided passage, how many non-specific time periods are mentioned, i.e., how many matches are there for the following regular expression:								
r'(age season epoch)\s+of\s+(\w+)'								
Place your answer within the boxed region below.								
Question 6	[Quantit	fiers] (5 Points)						
For each scen	nario, sel	ect the quantifier tha	at is mos	t appropriate.				
You want to match the leading zeros for some number. E.g., "00" for "005". <part1></part1>								
You want to match the negative sign for some number. E.g., "-" for "-9". <part2></part2>								
You want to match the main digits (before any decimal point) for a required number. E.g. "123" for "123". <part3></part3>								
For each par PART1:	t (denote	ed by angle brackets)	, fill in t	he circle that corresp	ponds to	your answer.		
	\bigcirc	+	\bigcirc	?	\circ	*		
PART2:								
	\circ	*	0	?	0	+		
PART3:								
	\bigcirc	*	\bigcirc	?	0	+		
Question 7 [General Quantification] (5 Points) Which of the following does the regex r'I'm So{3,4} Hungry!' match? Select all that apply. Fill in all boxes that corresponds to your answers. I'm Soo Hungry!								

Version: 449cd539-d 4

I'm So Hungry!

I'm Sooo Hungry!

I'm Soooo Hungry!

Question 8 [Backreference Matching] (10 Points)

Suppose that we are trying to write a script extract name information from text and put it into a CSV (comma-separated value) file. The order of the columns in our CSV file are: first name, last name, and title. As part of our script, we have a regular expression that looks for people that have their name's written as "last, first".

```
import re

def create_csv_line(text_line):
    regex = r'^\s*((Dr).?)?\s*([^,]+)\s*,\s*(.+)\s*$'
    replacement = MY_REPLACEMENT_STRING
    return re.sub(regex, replacement, text_line)
```

Fill in the blanks in MY_REPLACEMENT_STRING to make the above code work correctly. MY_REPLACEMENT_STRING = r' < A >, < B >, < C >'

For each part (denoted by angle brackets), place your answer in the associated box.



Question 9 [Regex Golf] (15 Points)

Create a regular expression that matches successfully completes a game a golf with the table below. Specifics:

- Match all values in the Match column.
- Do not match any values in the No Match column.
- Write you regex as a raw string using a single or double quotes (not triple quotes).
- Treat the contents of each table cell as a string (so you do not have the match the quotes).
- You may assume that any contiguous whitespace is a single space character.
- You only need to match (or not match) the values in the table, you do not need to extend this pattern to unseen values.

Match	No Match		
'12:00 AM'	'00:00'		
'05:30 PM'	'17:30'		
'01:45 AM'	'01:65 AM'		
'10:10 PM'	'10:10 ZZ'		
'12:34 PM'	'12:34 pm'		
'11:59 PM'	'23:59'		
	'123:45 AM'		
	'12:345 PM'		

Place your answer within the boxed region below.

Question 10 [Write a Function] (20 Points)

Implement a function with the following signature and description:

```
import re

def compute(text):
    """
    Compute the result of the binary expression represented in the |text| variable.
    The possible operators are: "+", "-", "*", and "/".
    Operands may be any real number.
    If the operation is division, the RHS (denominator) will not be zero.
    """
    return NotImplemented
```

Specifics:

- Your function must use regular expressions.
- You may not use eval() or any other Python ast functionality.
- You may only import modules from the Python standard library.
- You should return a float that is the result of the binary operation represented by text.
- The operator will be one of: $\{+, -, *, /\}$.
- Operands may be any real number.

Place your answer within the boxed region on the next page.