

Q3. Finding Vocabularies (30 marks):

Students are given a paragraph of essay to read in every English lesson. The number of words, n , in the paragraph is not more than 100 words. The students are requested to calculate the total number of unique vocabularies that can be found from the essay. The repetition of the word that appears in the paragraph before is not counted. The students also need to list out all the unique vocabularies in alphabetical order. The purpose of this activity is to let students learn new vocabularies. Please note that the vocabulary is based on the word with different spelling, i.e., *hobby* and *hobbies* are considered as two vocabularies.

Write a program to

Input, a sequence of words, $word_n$, that forms a paragraph of essay, where $1 \leq n \leq 100$.

Output the number of unique vocabularies, followed by the list of vocabularies in uppercase letters and alphabetical order.

Note:

1. All of the punctuation has to be removed except apostrophe (').
2. Numbers are not considered as vocabularies.
3. Convert all of the characters to uppercase before displaying the vocabularies.

试题 3. 寻找词汇 (30 分) :

在每节英语课中，学生都会获得一段文章供他们阅读。文章段落中的字数 n ，不超过100字。学生需要计算文章中的独特词汇的数量。之前在文章中出现过的重复单词将不被计算在内。学生还需要按字母顺序列出所有的词汇。本次活动的目的是让学生学习新的词汇。请注意，词汇是根据拼写不同的单词而定的，即 *hobby* 和 *hobbies* 被视为两个不同的词汇。

试写一程式以

输入 构成了一段文章的单词序列, $word_n$, 其中 $1 \leq n \leq 100$.

依序输出 这段文章词汇的数量，然后以大写字母、根据字母顺序列出每一个独特词汇。

请注意,

1. 除撇号 (') 外，所有标点符号都必须删除。
2. 数字不算词汇。
3. 在显示词汇之前所有字符必须转换为大写。

Test Cases

Input (输入)	Output (输出)
Feeling thankful is how I feel now. The greatest present to receive is the sense of content and gratitude that I feel. No matter how much I earn or the value of properties I owe, without sharing, how life can be?	31 AND BE CAN CONTENT EARN FEEL FEELING GRATITUDE GREATEST HOW I IS LIFE MATTER MUCH NO NOW OF OR OWE PRESENT PROPERTIES RECEIVE SENSE SHARING THANKFUL THAT THE TO VALUE WITHOUT
As I stepped forward to the isolated and deserted place, cold air around me slowly dissipated as the sudden warmth enveloped around me to the core of my spine.	23 AIR AND AROUND AS COLD CORE DESERTED DISSIPATED ENVELOPED FORWARD I ISOLATED

	ME MY OF PLACE SLOWLY SPINE STEPPED SUDDEN THE TO WARMTH
We approached the last hundred metres. I was only half a motorcycle's length behind him. With a final flick, we crossed the finish line. We looked up at the giant screen. A camera replay was being shown. It was too close to call a winner. "And the winner is Will!" the commentator boomed through the sound system.	44 A AND APPROACHED AT BEHIND BEING BOOMED CALL CAMERA CLOSE COMMENTATOR CROSSED FINAL FINISH FLICK GIANT HALF HIM HUNDRED I IS IT LAST LENGTH LINE LOOKED METRES MOTORCYCLE'S ONLY REPLAY SCREEN SHOWN SOUND SYSTEM THE THROUGH TO

	<p>TOO UP WAS WE WILL WINNER WITH</p>
<p>During the last hundred years, English has become the most important language in the world. In the contemporary age, learning any foreign tongue has become both fashionable and necessary. But is there a perfect method which can be applied to achieve the appropriate level of English?</p>	<p>38 A ACHIEVE AGE AND ANY APPLIED APPROPRIATE BE BECOME BOTH BUT CAN CONTEMPORARY DURING ENGLISH FASHIONABLE FOREIGN HAS HUNDRED IMPORTANT IN IS LANGUAGE LAST LEARNING LEVEL METHOD MOST NECESSARY OF PERFECT THE THERE TO TONGUE WHICH WORLD YEARS</p>
<p>"Hi, can I help you?" asked the girl who was standing in front of me with a huge grin. I swallowed hard while admiring her curly blonde.</p>	<p>42 A</p>

Seeing that, I knew she must be Mom's daughter. She looked 15, lean and has beautiful brown eyes. Pretty.	ADMIRING AND ASKED BE BEAUTIFUL BLONDE BROWN CAN CURLY DAUGHTER EYES FRONT GIRL GRIN HARD HAS HELP HER HI HUGE I IN KNEW LEAN LOOKED ME MOM'S MUST OF PRETTY SEEING SHE STANDING SWALLOWED THAT THE WAS WHILE WHO WITH YOU
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Input (输入)	Output (输出)
[Here's the truth about your mother, Diana. When it came time you were born, not a glimpse of disgust had she shown despite your condition. There was only one regret...]	29 A ABOUT

	<p>BORN CAME CONDITION DESPITE DIANA DISGUST GLIMPSE HAD HERE'S IT MOTHER NOT OF ONE ONLY REGRET SHE SHOWN THE THERE TIME TRUTH WAS WERE WHEN YOU YOUR</p>
<p>They say that a fool and his money are soon parted. Thus, I would be very careful with how I spend my money. I would invest my money with my parents' advice and keep some for rainy days.</p>	<p>29 A ADVICE AND ARE BE CAREFUL DAYS FOOL FOR HIS HOW I INVEST KEEP MONEY MY PARENTS' PARTED RAINY SAY SOME</p>

	SOON SPEND THAT THEY THUS VERY WITH WOULD
I immediately called my chief programming officer. A sore looking, depressed, fat guy entered my cabin. "Take that look off your face at once," I exclaimed. "I've found the solution to our problem!" I shouted happily.	33 A AT CABIN CALLED CHIEF DEPRESSED ENTERED EXCLAIMED FACE FAT FOUND GUY HAPPILY I I'VE IMMEDIATELY LOOK LOOKING MY OFF OFFICER ONCE OUR PROBLEM PROGRAMMING SHOUTED SOLUTION SORE TAKE THAT THE TO YOUR