

Senior Division**STRINGS AND THINGS**

PROBLEM: Given a string of characters, answer some questions about the string.

INPUT: A string of characters. All letters will be upper case. The characters may not be entered one at a time or one word at a time.

OUTPUT:

1. How many words in the string
2. Print all the words in reverse order, ie STOP becomes POTS.
3. Write the words in alphabetical order
4. Print the words in the string in reverse order, ie I SEE HIM becomes HIM SEE I
5. Print all pairs of words in which one word in the string, containing more than one letter, is contained in another.

Example: HE HOPS WHEN HE SHOPS.
HOPS, SHOPS
HE, WHEN

IN A RIGHT TRIANGLE THE SQUARE OF THE HYPOTENUSE EQUALS THE SUM OF THE SQUARES OF THE LEGS.

SAMPLE OUTPUT

1. 18
2. NI A THGIR ELGNAIRT EHT ERAUQS FO EHT ESUNETOPYH SLAUQE EHT MUS FO EHT SERAUQS FO EHT SGEL
3. A EQUALS HYPOTENUSE IN LEGS OF RIGHT SQUARE SQUARES SUM THE TRIANGLE
4. LEGS THE OF SQUARES THE OF SUM THE EQUALS HYPOTENUSE THE OF SQUARE THE TRIANGLE RIGHT A IN
5. SQUARE, SQUARES