

H P C O D E W A R S X V I I

You step into the next event tent, which has been decorated like a school classroom. Around the room are all the letters of the alphabet. On the large board at the front of the room, you see:

problem **5**
Pangram
5 points

The quick brown fox jumps over the lazy dog.

The bulletin board on the wall explains: A sentence that uses every letter of the alphabet is called a pangram. A "perfect" pangram only uses each letter once.

Write a program to determine if a sentence is a pangram or a perfect pangram.

Input

Each line of input is a sentence that ends with a period. Other punctuation may also be included. The input ends with a single period.

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THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.  
ALL YOUR BASE ARE BELONG TO US; SOMEONE SET US UP THE BOMB.  
"NOW FAX A QUIZ TO JACK!" MY BRAVE GHOST PLED.  
QUICK HIJINX SWIFTLY REVAMPED THE GAZEBO.  
NEW JOB: FIX MR GLUCK'S HAZY TV, PDQ.  
LOREM IPSUM DOLOR SIT AMET CONSECTETUR ADIPISCING ELIT.  
PACK MY BOX WITH FIVE DOZEN LIQUOR JUGS.  
.
```

Output

For each sentence, the program must print the key word **PERFECT** if the sentence is a perfect pangram, **PANGRAM** if it is a non-perfect pangram, or **NEITHER** if it is neither one. After the key word, the program must also print a colon, a space, and the original sentence.

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PANGRAM: THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.  
NEITHER: ALL YOUR BASE ARE BELONG TO US; SOMEONE SET US UP THE BOMB.  
PANGRAM: "NOW FAX A QUIZ TO JACK!" MY BRAVE GHOST PLED.  
PANGRAM: QUICK HIJINX SWIFTLY REVAMPED THE GAZEBO.  
PERFECT: NEW JOB: FIX MR GLUCK'S HAZY TV, PDQ.  
NEITHER: LOREM IPSUM DOLOR SIT AMET CONSECTETUR ADIPISCING ELIT.  
PANGRAM: PACK MY BOX WITH FIVE DOZEN LIQUOR JUGS.
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