# **Problem 8: Pangram**

15 minutes, 150 points

Filename: prob08 (e.g. prob08.c, prob08.cpp, prob08.java, prob08.py2, prob08.py3)

## **Description**

A sentence that uses every letter of the alphabet is called a pangram. A "perfect" pangram only uses each letter once. Given a sentence, determine if the sentence is a perfect pangram (each letter of alphabet once), a pangram, or neither.

Each line contains a sentence containing no more than 60 characters. Every sentence will be formatted in uppercase.

Return "PERFECT", "PANGRAM", or "NEITHER" followed by a colon, then a space, then the original sentence. Stop processing when you receive a line that contains only a period.

## Sample Input

```
YOU CAN'T TEACH AN OLD DOG NEW TRICKS
SPHINX OF BLACK QUARTZ, JUDGE MY VOW
MR JOCK, TV QUIZ PHD, BAGS FEW LYNX
THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG
IF YOU CAN'T STAND THE HEAT, GET OUT OF THE KITCHEN
THE FIVE BOXING WIZARDS JUMP QUICKLY
.
```

### Sample Output

```
NEITHER: YOU CAN'T TEACH AN OLD DOG NEW TRICKS
PANGRAM: SPHINX OF BLACK QUARTZ, JUDGE MY VOW
PERFECT: MR JOCK, TV QUIZ PHD, BAGS FEW LYNX
PANGRAM: THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG
NEITHER: IF YOU CAN'T STAND THE HEAT, GET OUT OF THE KITCHEN
PANGRAM: THE FIVE BOXING WIZARDS JUMP QUICKLY
```

#### **Learn More**

The best-known English pangram is "The quick brown fox jumps over the lazy dog." It has been used since at least the late 19th century, was utilized by Western Union to test communication equipment for accuracy and reliability, and is now used by a number of computer programs (most notably the font viewer built into Microsoft Windows) to display computer fonts.