1. Given a sentence, return the number of words which have the same first and last letter.

#### **Examples**

```
count_same_ends("Pop! goes the balloon") 1

count_same_ends("And the crowd goes wild!") 0

count_same_ends("No I am not in a gang.") 1
```

2. The Atbash cipher is an encryption method in which each letter of a word is replaced with its "mirror" letter in the alphabet: A <=> Z; B <=> Y; C <=> X; etc.

Create a function that takes a string and applies the Atbash cipher to it.

#### **Examples**

```
atbash("apple") "zkkov"

atbash("Hello world!") "Svool dliow!"

atbash("Christmas is the 25th of December") "Xsirhgnzh rh gsv 25gs lu Wvxvnyvi"
```

3. Create a class Employee that will take a full name as argument, as well as a set of none, one or more keywords. Each instance should have a name and a lastname attributes plus one more attribute for each of the keywords, if any.

# **Examples**

```
john = Employee("John Doe")
mary = Employee("Mary Major", salary=120000)
richard = Employee("Richard Roe", salary=110000, height=178)
giancarlo = Employee("Giancarlo Rossi", salary=115000, height=182,
nationality="Italian")

john.name "John"
mary.lastname "Major"
richard.height 178
giancarlo.nationality "Italian"
```

4. Create a function that determines whether each seat can "see" the front-stage. A number can "see" the front-stage if it is strictly greater than the number before it.

Everyone can see the front-stage in the example below:

```
# FRONT STAGE
[[1, 2, 3, 2, 1, 1],
[2, 4, 4, 3, 2, 2],
[5, 5, 5, 5, 4, 4],
[6, 6, 7, 6, 5, 5]]
```

# Starting from the left, the 6 > 5 > 2 > 1, so all numbers can see. # 6 > 5 > 4 > 2 - so all numbers can see, etc.

Not everyone can see the front-stage in the example below:

```
# FRONT STAGE [[1, 2, 3, 2, 1, 1], [2, 4, 4, 3, 2, 2], [5, 5, 5, 10, 4, 4], [6, 6, 7, 6, 5, 5]]
```

# The 10 is directly in front of the 6 and blocking its view.

The function should return True if every number can see the front-stage, and False if even a single number cannot.

# Examples

```
can_see_stage([
    [1, 2, 3],
    [4, 5, 6],
    [7, 8, 9]
]) True

can_see_stage([
    [0, 0, 0],
    [1, 1, 1],
    [2, 2, 2]
]) True

can_see_stage([
    [2, 0, 0],
    [1, 1, 1],
```

```
[2, 2, 2]
]) False

can_see_stage([
  [1, 0, 0],
  [1, 1, 1],
  [2, 2, 2]
]) False
```

- # Number must be strictly smaller than # the number directly behind it.
- 5. Create a Pizza class with the attributes order\_number and ingredients (which is given as a list). Only the ingredients will be given as input.

You should also make it so that its possible to choose a ready made pizza flavour rather than typing out the ingredients manually! As well as creating this Pizza class, hard-code the following pizza flavours.

Name Ingredients
hawaiian ham, pineapple
meat\_festival beef, meatball, bacon
garden\_feast spinach, olives, mushroom

### **Examples**

```
p1 = Pizza(["bacon", "parmesan", "ham"]) # order 1
p2 = Pizza.garden_feast() # order 2

p1.ingredients ["bacon", "parmesan", "ham"]

p2.ingredients ["spinach", "olives", "mushroom"]

p1.order_number 1

p2.order_number 2
```