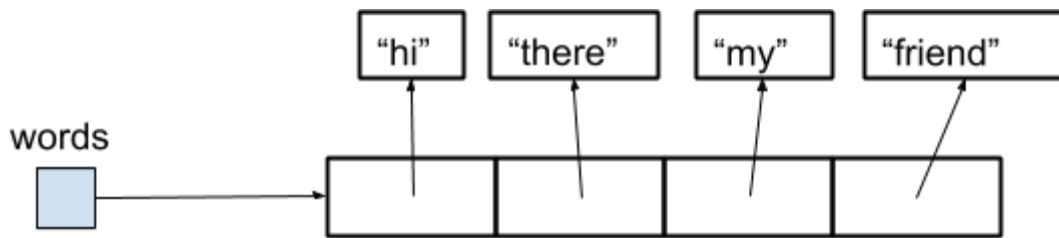


Name: _____ **SOLUTION** _____ CM: _____ Section: _____ Grade: _____ of 10

You are given the list of words represented by this box and pointer diagram:



1. What does the following statement cause to be displayed? `print(words[0])` **hi**

2. Write a line of code that sets the variable `x` to the string "friend", using the `words` list.

```
x = words[3]
```

3. Write a line of code that replaces the string "my" in the `words` list by the string "her".

```
words[2] = "her"
```

4. What happens if we try to print `words[4]`? Why?

The program "throws an Exception" at that point of the run, causing it to crash with an error message:

```
IndexError: list index out of range
```

This happens because the list has only 4 items in it, numbered 0 1 2 3, so the item at position (index) 4 is past the end of the list.

[Grader: anything like "crashes because past the end of the list" is enough for full credit.]

In the following problems, assume that **you are given a long sequence called *things*.**

5. Write a line of code that prints the number of items in *things*. `print(len(things))`

6. Write a line of code that prints the last item in *things*.

```
print( things[len(things) - 1] )
```

7. Write code to print all of the items in *things*, each on their own line.

```
for k in range(len(things)):      OR      for thing in things:  
    print( things[k] )                print(thing)
```

8. Explain what this code prints (assuming that *nums* is a sequence of numbers):

```
total = 0  
for k in range(0, len(nums), 2):  
    total = total + nums[k]  
print(total)
```

It prints the sum of all the numbers in the sequence that are at even-numbered indices (positions).