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WE PROVIDE SOLUTIONS TO EDUCATIONAL PROBLEMS

## Lesson 17a: lists

A list is a collection of items separated by commas in square brackets.

Example:

```
[ "eggs", "bread", "milk", "soft drinks", "cheese" ]
```

But you will probably have lists inside of lists like...

```
[[ "eggs", 12, "large" ], [ "milk", "1 gallon" ], [ "coco-cola", "12 cans" ], [ "cheese", "1 pound", "yellow" ]]
```

Notice they don't have to be similar at all. Even different data types.

## Lesson 17b: creating lists

```
vowels = [ "a", "e", "i", "o", "u" ]
```

```
animals = []
```

## Lesson 17c: retrieving data from a list

```
vowels = [ "a", "e", "i", "o", "u" ]
```

```
print(vowels[0]) = a
```

```
Names = [ "John", "Mark", "Tim" ]
```

```
print(Names[1][2]) = r
```

```
StudentInfo = [ "John", [4.0, 4.0, 3.0, 3.5]]
```

```
print(StudentInfo[1][2])=3.0
```

```
vowels = [ "a", "e", "i", "o", "u" ]
```

```
print(vowels[0:2]) = ['a', 'e']
```

```
Names = [ "John", "Mark", "Tim" ]
```

```
print(Names[1][2]) = r
```

```
StudentInfo = [ "John", [4.0, 4.0, 3.0, 3.5]]
```

```
print(StudentInfo[1][2])=3.0
```

## Homework for Lesson 17

### Simple assignment

- 1) Think of 5 different kinds of professions where lists would be important and the kind of lists they would use – No cheating. I don't want the lists to be similar. IE – don't give me customer list for bakery, customer list for company b, customer list for company c, customer list for company d and e. 5 different kinds of lists that would be useful.
- 2) Take what you have previously learned and try to think of all the different ways to print out every element in ANY list. While we haven't talked about things being used on lists, I want you to TRY things we used on strings or anything else and see if they will work on lists. Sometimes the best way to learn is to experiment. To get you started you can use the vowel list, but your method should work for ANY list of any size. We will stick to a single simple list (ie – no list inside a list).