AERE 161 Lab 7

Problem 8.5

Create three cell array variables that store people's names, verbs, and nouns. For example,

```
names = {'Harry', 'Xavier', 'Sue'};
verbs = {'loves', 'eats'};
nouns = {'baseballs', 'rocks', 'sushi'};
```

Write a script that will initialize these cell arrays, and then print sentences using one random element from each cell array (e.g. 'Xavier eats sushi').

Problem 8.13

Here is an inefficient way of creating a structure variable to store a person's name as first, middle, and last:

```
>> myname.first = 'Homer';
>> myname.middle = 'James';
>> myname.last = 'Fisch';
```

Re-write this more efficiently using the **struct** function:

Problem 8.25

Given a vector of structures defined by the following statements:

```
kit(2).sub.id = 123;
kit(2).sub.wt = 4.4;
kit(2).sub.code = 'a';
kit(2).name = 'xyz';
kit(2).lens = [4 7];
kit(1).name = 'rst';
kit(1).lens = 5:6;
kit(1).sub.id = 33;
kit(1).sub.wt = 11.11;
kit(1).sub.code = 'q';
```

Which of the following expressions are valid? If the expression is valid, give its value. If it is not valid, explain why.

1) `kit(1).sub`

2) `kit(2).lens(1)`

3) `kit(1).code`

4) `kit(2).sub.id == kit(1).sub.id`

5) `strfind(kit(1).name, 's')`

Problem 9.11

A set of data files named “exfile1.dat”, “exfile2.dat”, etc. has been created by a series of experiments. It is not known exactly how many there are, but the files are numbered sequentially with integers beginning with 1. The files all store combinations of numbers and characters, and are not in the same format. Write a script that will count how many lines total are in the files. **Note** that you do not have to process the data in the files in any way; just count the number of lines.