

**Answer the following questions.**

```
1function [out1, avg, out3] =deStruct(in)
2num = length(in);
3field = fieldnames(in);
4out1 = [];
5for i= 1:num
6    if isstruct(in(i).(field{1}))
7        out1 = [out1 in(i).(field{1})];
8    end
9end
10rating = [out1.Rating];
11service = [out1.Service];
12avg=mean([rating; service]);
13%part c
14%part d
15out3 = {{out1.Name}};
16end
```

Assume that the above function is defined in the current directory. The following code is then run in the Command Window.

```
>> rest1 = struct('Name', 'Five Guys', 'Rating', 99, 'Service', 99);
>> rest2 = struct('Name', 'iHOP', 'Rating', 50, 'Service', 42);
>> book = struct('Restaurant', {rest1, 'Antico', rest2});

>> [out1, avg, out3] =deStruct(book);
```

a. After the function is run, what are the sizes and classes of `out1` and `out3`?

	out1	out3
Rows:		
Columns:		
Class:		

b. After the function is run, what is the value of `rating`?

c. Write a few lines of code to append a new field called 'Average' to the structure stored in `out1` starting at line 13. The field should contain the restaurant's corresponding average found in the variable `avg`.

d. Write a few lines of code to find the restaurant with the highest rating found in `out1` starting at line 14. Store the name of the restaurant in the variable `best`.

e. Which of the following lines of code removes the `Name` field from `out1`? There is only one correct answer.

- ☐ `rmfield(out1, 'Name')`
- ☐ `out1.Name = []`
- ☐ `out1 = rmfield(out1, 'Name')`
- ☐ `rmfield(out1, Name)`
- ☐ `out1 = rmfield(out1, Name)`