

MIS 21 - Introduction to Application Development
Intersession 2016-2017
Activity #1: Basic Ruby

Create a ruby file for each of the following problems (5 pts each). Make sure to follow the following conventions:

- Lower case for variables
 - Snake case for compound words (i.e. first_name, number_of_items)
 - File names should be lower cased and snake cased (i.e. solution_1.rb)
1. Create a function that takes in an array of numbers and computes for the mean of all the numbers. Name the function average_of(). Template is as follows:

```
def average_of(numbers)
end
```

Expected Output:

```
num_array = [3, 4, 2]
mean = average_of(num_array)
puts mean # should display 3
```

2. Create a function that takes an array of numbers and computes for median of all the numbers. Name the function median_of(). Template is as follows:

```
def median_of(numbers)
end
```

Expected Output:

```
num_array = [3, 5, 12]
median = median_of(num_array)
puts median # should display 5
```

3. Create a function that accepts an array of numbers and returns a sorted version of the array from least to greatest using the bubblesort algorithm.

Expected Output:

```
num_array = [5, 1, 3, 4]
sorted_array = bubble_sort(num_array)
puts sorted_array # should display [1, 3, 4, 5]
```

4. Create a function that accepts two integers x and n. The function should return the number x raised to the power of n. The function should use recursion to achieve this.

Expected output:

```
puts pow(2, 2) # should display 4
puts pow(3, 3) # should display 27
```