

Write a Java Program to solve each one of the problem. Write all methods in the same file, submit to @homeworkbot. You only have to do 8 questions (every even or every odd).

1. Write a method that takes a parameter for the number of a month and prints the month's name.

This method must be called `monthName()` and it must have an integer parameter.

Calling `monthName(8)` should print August to the screen

2. Write a method that takes a parameter for the number of a month and prints the number of days in the month. Assume that February will always have 28 days for this activity.

This method must be called `monthDays()` and it must take a integer parameter.

Calling `monthDays(2)` would print 28 and `monthDays(9)` would print 30

3. Write a method that takes two integer parameters and prints them in reverse.

This method must be called `swap` and should take two integer parameters.

Calling `swap(3, 7)` would print 7 3.

4. Write a method that accepts a number of seconds and prints the correct number of hours, minutes and seconds.

This method must be called `realTime()` and its parameter must be an integer.

Calling `realTime(6342)` would print the following:

Hours: 1

Minutes: 45

Seconds: 42

5. Write a method that takes an array of Strings and changes the Strings to UPPER CASE.

This method must be called `upper()` and it must take a `String[]` parameter.

6. Write a method that takes an array of ints and stores random numbers between 10 and 99 in the array. Use `Math.random()` to generate random numbers and convert them to integers between 10 and 99 inclusive.

This method must be called `randomize()` and it must take an `int[]` parameter.

7. Write a method that takes an array of ints and reverses the order of the values in the array. So the array {1, 2, 3} would be changed to {3, 2, 1}.

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This method must be called `reverse()` and it must take an `int[]` parameter.

**8.** Write a method that takes an array of ints, an integer value, and an integer index. The method should insert the value at the given index and move the values afterwards by one.

This method must be called `insertValue()` and must have the following parameter types:

`int[], integer, integer`.

For example, `insertValue(a, 100, 2)` would change the array `{1, 2, 3, 4, 5}` to `{1, 2, 100, 3, 4}`.

**9.** Write a method that takes an array of ints as a parameter and returns the sum of integers in the array.

This method must be named `sum()` and it must have an `int[]` parameter. This method must return an int.

Calling `sum(a)` would return 6 if `a = {1, 2, 3}` or 3 if `a = {1, 1, 1}`.

**10.** Write a method that takes an array of ints as a parameter and returns the sum of integers in the array.

This method must be named `sum()` and it must have an `int[]` parameter. This method must return an int.

Calling `sum(a)` would return 6 if `a = {1, 2, 3}` or 3 if `a = {1, 1, 1}`.

**11.** Write a method that takes an array of ints as a parameter and returns the average value of the array as a double.

This method must be named `average()` and it must have an `int[]` parameter. This method must return a double.

Calling `average(a)` would return 2.0 if `a = {1, 2, 3}` or 1.0 if `a = {1, 1, 1}`.

**12.** Write a method that takes an array of ints and returns the largest value in the array.

This method must be named `findMax()` and it must have an `int[]` parameter. This method must return an int.

**13.** Write a method that takes an array of ints and returns the largest value in the array.

## Java S16 C13 HW

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This method must be named `findMax()` and it must have an `int[]` parameter. This method must return an `int`.

14. Write a method that takes an array of ints and returns a sum of only the even values.

This method must be named `sumEven()` and have an `int[]` parameter. This method must return an `int`.

For example, `sumEven(a)` would return 6 if `a = { 1, 2, 3, 4, 5 }`.

15. Write a method that takes an array of ints and returns true if all of the values in the array are nonnegative (greater than or equal to zero). If the array contains any negative integers, it should return false.

This method must be named `allPositive()` and have an `int[]` parameter. This method must return a `boolean`.

16. Write a method called `isPalindrome()`, which take an a String parameter S and return true, if it's a palindrome, otherwise return false