

COP 2250 - Programming in Java
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Program 3c : covering Multidimensional Arrays, swap, mathematical functions, endless while

Make sure to follow the indentation and headings rules

[worth 2 points]

- From main pass 3 numbers to a method that will print these numbers, then sorted them using the swap method discussed in class to make them in ascending order, then print these sorted numbers.
e.i. if you pass (98, 234, 6)
it will print 98, 234, 6
6, 98, 234

[worth 2 points]

- Using a while(true) loop,
and using the upper case alphabeth from Z to A,
print the lower case alphabeth and its corresponding ascii values.
You must terminate/exit/break this loop once you process the last letter (A).
Note: The while(true) loop is called an endless loop because the true inside the (),
means that the condition is always true, and it is not a terminating variable.

[worth 2 points]

- Create a two dimensional array of 10 rows by 10 columns to store integers
Load each location in this array with the sum of its row + column
Add all the values in this array located in the following indexes (locations):
in the top row + last row + left column + right Column
Print each individual total (e.i. top row = xxx, last row = xxx, ... total = xxx)

[worth 2 points]

- From main() call Math methods passing corresponding parameters where you will implement the following;

Parameters in the main method:

```
int i = 7*2+1;    int j = i+9;  
double x = 2.5/2;    double y = x*(i+j)-0.34;
```

Math methods:

```
absolute value  
round  
ceiling  
floor  
Minimun value  
Maximun value  
Trig functions: cos, sin, tan  
Exponentials  
Logs  
Powers  
Square Roots  
Random
```

Examples of calling the Math methods and passing the parameters, from main:

```
processAbsoluteValues( i, j, x, y );  
processRoundValues( i, j, x, y );  
processCeilingValues( i, j, x, y );  
processFlooringValues( i, j, x, y );  
processMinimunValues( i, j );  
processMaximunValues( i, j );  
processTrigFunctionsValues( i );  
processExponentialValues(i, j, x, y );  
processLogValues(i, j, x, y );  
processPowerValues(i, j, x, y );  
processSquareRootsValues(i, j, x, y );  
processRandomValues( i, j, x, y );
```

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