**Date Submitted: 11.02.2018**

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**Task 01:** Submit a comprehensive commented file of the original code

**Youtube Link**: N/A

#ifndef M\_PI

#define M\_PI 3.14159265358979323846

#endif

#define SERIES\_LENGTH 100

float gSeriesData[SERIES\_LENGTH];

int32\_t i32DataCount = 0;

int main(void)

{

float fRadians; *//float variable*

FPULazyStackingEnable(); *//Enable lazy stacking*

FPUEnable(); *//Enable FPU*

*//CPU 50MHz*

SysCtlClockSet(SYSCTL\_SYSDIV\_4 | SYSCTL\_USE\_PLL | SYSCTL\_XTAL\_16MHZ | SYSCTL\_OSC\_MAIN);

fRadians = ((2 \* M\_PI) / SERIES\_LENGTH); *//Calculate Radians*

*// from 0 - 1000 angles of a circle*

**while**(i32DataCount < SERIES\_LENGTH)

{

gSeriesData[i32DataCount] = sinf(fRadians \* i32DataCount);

*//store sine values onto array*

i32DataCount++; *//Data Count loop control*

}

**while**(1)

{

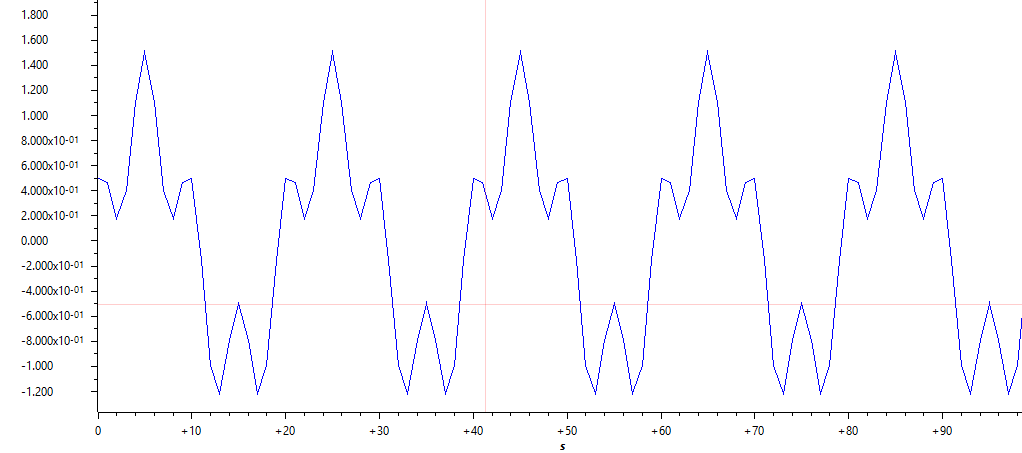
}*//end while()*

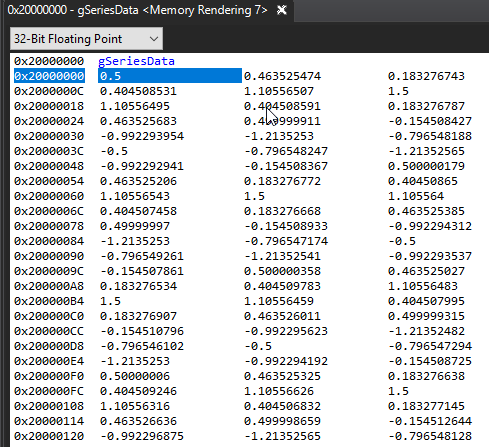
}*//end main*

**Task 02:** Modify the code to implement the below equation to generate a frequency of 5 Hz. Display

the equation for 1 sec. 1.0\*sin(2pi50t) + 0.5\*cos(2pi200t)

**Youtube Link: N/A**

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