**[100 points]**

**Teams:** Form groups of 4 each. Email Chi with the team name and members.

**Task:**

Using the ARM simulator (ARMSim), write code that computes sinh(x), cosh(x), and ex of 32 bit IEEE-754 floating point numbers without using ARM multiplier. There will be extra credit for any additional functions you generate.

**Proposed steps:**

1. Read a number from memory (store any constants in memory)
2. Computer sinh(x)
3. Computer cosh(x)
4. Computer ex
5. Store result (and anything else interesting) in memory
6. Determine how may computer cycles it took.

**Schedule:**

Sunday, 7 May, 11.59pm: Assembly code due on Blackboard

Monday, 9 May, 11.59pm: No changes allowed after submission

Documentation due on Blackboard as PDF

Tuesday-Friday 9-12 May: 10 min demonstration, in Chi’s office

**Grading:**

Source code: 30%

* Commented!!!!

Oral presentation & demonstration: 30%

* 10 minutes
  + Approach, Code discussion, Issues and solutions, Your Results, and Demonstration with Chi’s numbers

Final report: 30%

* A Total Computer Cycles for each function.
* Total Processing time assuming a 32kHz clock, a 1MHz clock, and a 1 GHz clock for each function
* CPI for each function
* All implemented algorithms must be described.
* Show sample input and output data

Peer review: 10%