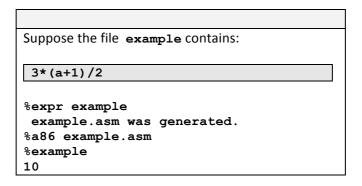**SWE 514 Computer Systems**
Project (due Dec. 18**)**
(This project can be implemented in groups of at most two students.)
(Use C/C++ language to implement the project)

In this project, you will implement a program (called `expr)` that generates A86 code for a calculating the value of a hexadecimal expression that uses +, *, / operations and parantheses. Expressions will be infix expressions. The division operation / is integer division (i.e. ignore the remainder).

You can assume all values and results of operations will fit into 16 bits.   An example of `expr` usage is given below:

Suppose the file `example` contains:

```
3*(a+1)/2
```

```
%expr example
 example.asm was generated.
%a86 example.asm
%example
10
```

Please note the following:
- You can assume all numbers are non-negative integers.
- All values are written in hexadecimal format. Output should be in hexadecimal format.
- You can have paranthesized expressions.

Grading
Your project will be graded according to the following criteria:

Documentation (written document describing how you implemented your project)	12%
Comments in your code	8%
Implementation and tests	80%