

**Files to submit:** divAssembly.s

**Time it took Matthew to complete:** 15 mins

- All programs must compile without warnings when using the -Wall and -Werror options
- Submit only the files requested
  - Do **NOT** submit folders or compressed files such as .zip, .rar, .tar, .targz, etc
- If submitting in a group on Grade Scope please make sure to mark your partner.
  - Only one of you has to submit there
- Your program must match the output exactly to receive credit.
  - Make sure that all prompts and output match mine exactly.
  - Easiest way to do this is to copy and paste them
- All input will be valid unless stated otherwise
- Print all real numbers to two decimal places unless otherwise stated
- The examples provided in the prompts do not represent all possible input you can receive.
- All inputs in the examples in the prompt are underlined
  - You don't have to make anything underlined it is just there to help you differentiate between what you are supposed to print and what is being given to your program
- If you have questions please post them on Piazza

Translate the C program you wrote to do division in constant time into an assembly program called **divAssembly.s**.

1. The label for the dividend is **dividend**
  1. 4 bytes of space should be made for the dividend
2. The label for the divisor is **divisor**
  1. 4 bytes of space should be made for the divisor
3. Place the quotient in **EAX**
4. Place the remainder in **EDX**
5. Don't forget that if you want to shift by a variable amount the shift amount must be placed in CL. Your assembly code won't work if you try to place it in any other register.
6. **AFTER** the last line of code that you wish to be executed in your program please place the label **done**.
  1. Make sure that there is an instruction after the done line and a new line after that instruction. If you don't your output won't match mine.S
7. **IT IS OF VITAL IMPORTANCE THAT YOU NAME YOUR LABELS AS SPECIFIED AND MAKE THE APPROPRIATE AMOUNT OF SPACE FOR EACH VARIABLE!** I will be using gdb to test your code and if your labels do not match then the tests will fail. You must also make sure to include the done label **AFTER** the last line of code you want executed in your program so that I know where to set break points.