

In class exercises for Class 03 on 01.30.2019

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Continue to use your notebook from the lecture, but please insert a text cell and a note to indicate where your problem set begins so that I can easily find your answers.

Please also number your answers with a short comment like: #1a, 1b...3a...etc.

Do all work in your notebook, and make sure to run each cell of code before you move on.

1) [stole this one from [here](#)]. Drive the user crazy by insisting they re-enter a particular input no matter what they enter. Be creative...

2) Use a 'while' loop to find the greatest common divisor of two integers (and collect user input to define the two integers). The greatest common divisor is the largest positive integer that divides each of the integers (e.g. GCD of 8 and 12 is 4 - this is also sometimes referred to as the greatest common factor). Remember the modulo operator (might not be the only way, but likely the most efficient).

Note - the best way i figured out has 1 while loop and 1 line of code in the while loop. And it only loops twice for the 12,8 example in the question (i.e. it does not brute force evaluate all possible numbers).

3) Design a number guessing game. In the game, you tell the player that your 'magic' number is between 0 and 1000 (or whatever you want), and then they have to guess the exact value. Design the program so that the player enters their guess, and you provide feedback. A simple version would give the player "higher" or "lower" feedback. A more fun version might probabilistically lie to the player while giving feedback. In either case, make sure that you cover all contingencies so that the player can input anything, even a non-number, and the program will handle it gracefully (i.e. not throw an error). And remember, your program needs an exit plan (i.e. no infinite loops)!