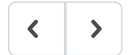


Discussion 2



Each week you will complete a programming task and share it on a discussion topic. Starting in week 2, you will be working with a partner to plan and write a program to solve a problem. After sharing, you will give feedback to two peer groups - giving them a compliment on something they did well, and then offering a suggestion for improvement.

Working on a project with a partner is an important soft skill that all companies look for when hiring developers. I encourage you to use the time while in school to step outside of your comfort zone and develop good collaboration skills.

Each student must post to the topic to receive a grade. Please include both partner names in your post. You must post first before you are able to view other posts!



Musical Note Frequencies

Complete this with a partner! On a piano, a key has a frequency, say f_0 . Each higher key (black or white) has a frequency of $f_0 * r^n$, where n is the distance (number of keys) from that key, and r is $2^{(1/12)}$. Given an initial key frequency, output that frequency and the next 4 higher key frequencies.

Output each floating-point value with two digits after the decimal point, which can be achieved as follows:

```
printf("%.2lf", yourValue);
```

Ex: If the input is:

440.0

(which is the A key near the middle of a piano keyboard), the output is:

440.00 466.16 493.88 523.25 554.37

Note: Use one statement to compute $r = 2^{(1/12)}$ using the pow function (remember to include the math library). Then use that r in subsequent statements that use the formula $f_n = f_0 * r^n$ with n being 1, 2, 3, and finally 4.

Task:

- Open this Replit and make a copy.
- Click on the Files icon -> design.doc and plan the steps of your algorithm.
- Start with the end - design what the user will see when they run your program.
- Design first, then write your C program.
- Update the program header with both partner names and other information, and post a link to your Replit on this discussion topic.

Look at one other student submission and give constructive feedback, using the Discussion Rubric. Please explain the reason for your grade always using generosity and respect when giving feedback.

Rubrics

 Discussion Rubric