CSCI 14 Programming Assignment #1, 20 points, due 9/5/22

Write a C++ program to convert a distance in miles and feet to kilometers. Use the following conversion values (**by which I mean *exactly* these values**) to convert the distances: one mile is 5280 feet, one meter is 3.28 feet, and one kilometer is 1000 meters. These conversion factors should be named constants. Do not use any other conversion factors. Your program will prompt (separately) for miles and feet. It will then calculate the equivalent distance in kilometers, and then display both the entered values and the result, formatted and labeled reasonably. Show any fractional part in the result.

For example, here is a test run on my machine:
Enter miles: 2
Enter feet: 0.5
2 miles and 0.5 feet is 3.21966 kilometers.

You may assume the user will enter reasonable values (relatively small nonnegative numbers) for miles and feet. **Allow only integer entries for miles, but allow fractional entries (e.g., 2.5) for feet.** If you do this right, and enter 2.5 for miles, the .5 will appear as the value for feet, and the 'feet' prompt will appear to skip the input phase. I don't care if your prompts or output messages look exactly like mine, just that you are reasonable in your screen layout.

Work out the conversion logic and what the program needs to do before you write the code. Your program should be properly formatted and well documented. The notes at the top of the program need to include the filename of your C++ program, your name, the date you started writing the code, the assignment number (this is why you're writing the program) and a short description of the problem solved by the program.

When you are sure your program works, test it with a wide range of values. Copy the shell output from the runs using the DOS CMD shell mark/copy menu options to capture the text, and then paste the test run text into an editor like Notepad. You may put your name at the top of your text file (but it isn't necessary) and put blank line or two between each run.
OTHERWISE, DO NOT EDIT THE OUTPUT AT ALL.

Email me the code and the results of test runs showing at least the following test values (copy and paste from the CMD shell into Notepad), with a few other values of your choice:

0 miles, 5280 feet
1 mile, 0 feet
2 miles, 0.5 feet
0 miles, 0 feet
0 miles, 3280 feet
0 miles, 3281 feet
0 miles, 3281.54 feet
0 miles, 3282 feet
10 miles, 0 feet
0 miles, 52800 feet
1.5 miles, 1.5 feet (this one might not work the way you expect it to)