University of Massachusetts Dartmouth
Department of Electrical and Computer Engineering

ECE 160 Name: `convchart.cpp`
Project 4 Due: see `http://ece160.org`

Write a program that will produce a chart showing equivalent miles/hour, smoots/sec, rods/min, furlongs/fortnight. The chart must have appropriately labeled column headings, and the right most digit of each value must be in columns 18, 36, 54, and 72 respectively. All values should be printed to 3 decimal places. The program must prompt the user to enter an initial value, and accept an initial value. Next the program must prompt the user to enter the final value and accept a final value. Finally, the program must prompt the user to enter an increment, and accept an increment value. The program must then print a table with appropriate column headings. Once the table is complete, the program should prompt the user for another set of input values in the same way. This should continue until the user enters 0 for increment. Some sample runs are shown below (user input is underlined).

```
Enter initial value:  150.0
Enter final value:    190.0
Enter increment value:5.0
          miles/hr       Smoots/sec          rods/min    frlngs/frtnght
           150.000           39.403           800.000        403200.000
           155.000           40.716           826.666        416640.000
           160.000           42.029           853.333        430080.000
           165.000           43.343           880.000        443520.000
           170.000           44.656           906.666        456960.000
           175.000           45.970           933.333        470400.000
           180.000           47.283           960.000        483840.000
           185.000           48.597           986.666        497280.000
           190.000           49.910          1013.333        510720.000
Enter initial value:  0.0
Enter final value:    4.0
Enter increment value:0.25
          miles/hr       Smoots/sec          rods/min    frlngs/frtnght
             0.000            0.000             0.000             0.000
             0.250            0.065             1.333           672.000
             0.500            0.131             2.666          1344.000
             0.750            0.197             4.000          2016.000
             1.000            0.262             5.333          2688.000
             1.250            0.328             6.666          3360.000
             1.500            0.394             8.000          4032.000
             1.750            0.459             9.333          4704.000
             2.000            0.525            10.666          5376.000
             2.250            0.591            12.000          6048.000
             2.500            0.656            13.333          6720.000
             2.750            0.722            14.666          7392.000
             3.000            0.788            16.000          8064.000
             3.250            0.853            17.333          8736.000
             3.500            0.919            18.666          9408.000
             3.750            0.985            20.000         10080.000
             4.000            1.050            21.333         10752.000
Enter initial value:  0.0
Enter final value:    0.0
Enter increment value:0.0
Press any key to continue . . .
```

Remember to include the required certification found at the end of the Grading Rubric. Also, check the rubric before handing in your project to insure you haven't made any obvious errors that result in loss of points.