

1. (Exponentiation) Write a function `integerpower (base, exponent)` that returns the value of $\text{base}^{\text{exponent}}$

For example , `integerPower(3,4) = 3*3*3*3`. Assume that exponent is a positive, nonzero integer, and base is a integer. Function `integerPower` should use `for` to control the calculation.

2. (Temperature Conversions) Implement the following integer functions:

a) Function `celsius` return the Celsius equivalent of a Fahrenheit temperature.

b) Function `fehrenheit` returns the Fehrenheit equivalent of a Celsius temperature.

c) Use these functions to write a program that prints charts showing the Fehrenheit equivalents of all Celsius temperatures from 0 to 100 degrees, and the Celsius equivalents of all Fehrenheit temperatures from 32 to 212 degrees. Print the outputs in a neat tabular format that minimizes the number of lines of output while remaining readable.