Formatting Output

Write a program that repeatedly asks for the principal, the interest rate (Rate), and the number of times (T) the interest is compounded and outputs the amount in savings. Use the following formula.

Amount in Savings = Principal \* (1 + Rate/T)T

Note that you can compute something raised to a power, for example, baseexponent using:

#include < math.h >  
...  
pow(base, exponent);

Also note that rate is input as a percent, but the formula assumes it is between 0 and 1, so divide the percent by 100.  
  
The output need to be in this format:  
Enter principal: 1000  
Enter interest rate (as percent): 4.25  
Enter number of times compounded: 12  
  
Interest Rate:           4.25%  
Times Compounded:           12  
Principal:         $   1000.00  
Amount in Savings: $   1043.34  
  
IMPORTANT: The purpose of this problem is output formatting. Not following the formatting shown will not receive full credit. Hard coding the formatting so that it only works for particular inputs will not receive full credit.

Here is the complete list of requirements for code:

* **Good style:** Use proper indentation and good naming conventions.
* **Usability:** Always prompt the user for input so they know what to do and provide meaningful output messages.
* **Input Validation:** The program should not accept invalid input, prompt the user to reenter an input that is invalid.
* **Documentation:** Add a comments that document what each part of your code does. Testing: Don't submit your solution until you have tested it. The code must compile, execute and produce the correct output for any input.

Submit only the .cpp file containing the code.