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CIS 5

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26 September 2017

Pseudocode for Calculating the amount of interest earned after one year.

1. Declare a floating point variable named *principal* to store the user entered principal value in dollars.
2. Declare a floating point variable named *rate* to store the user entered interest rate value in percentage.
3. Declare a floating point variable named *times_compounded* to store the user entered number of times the interest is compounded for a year.
4. Declare a floating point variable named *interest* to store the calculated users total interest earned in dollars.
5. Declare a floating point variable named *amount* to store the calculated users total amount in savings.
6. Display instructions to the screen telling the user how to enter percentages when prompted.
7. Display instructions to the screen telling the user how to enter dollar amount when prompted.
8. Ask the user to enter their Principal value in dollars.
9. Read in the user entered Principal value and store in the variable *principal*.
10. Ask the user to enter their interest rate value in percentage.
11. Read in the user entered interest rate value and store in the variable *rate*.
12. Ask the user to enter the amount of times the interest is compounded.

13. Read in the user entered amount of times the interest is compounded value and store in the variable *times_compounded*.
14. $amount = (principal) * \text{pow}(1 + (rate/times_compounded)), (times_compounded))$
15. $interest = amount - principal$
16. $rate = rate * 100$
17. Output the users interest rate in percentage to the terminal.
18. Output the amount of times the users interest is compounded to the terminal.
19. Output the users principal value to the terminal.
20. Output the users calculated total interest earned to the terminal.
21. Output the users calculated total amount in savings to the terminal.