An Investing Problem

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1 The Problem

Consider investing \( P \) dollars in an account that earns \( r\% \) interest compounded annually for a period of \( n \) years.

2 The Program

Write a C++ program that will prompt the user for the initial value \( P \) of the investment, the interest rate \( r\% \) and the number of years \( n \). The program then output the value of the investment after the \( n \) years have elapsed. The output should look something like the dialog below.

```
Input the dollar amount of initial investment: 1000.00
Input the interest rate (in decimal form): 0.075
Input the number of years: 20
The value of the investment is: 4247.85
The interest earned is: 3247.85
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The boldface “18” is what the user types on the keyboard.

3 Embellishment

Write the program so that it prints out the value of the investment and the interest earned for a range of years from \( n\text{Min} \) to \( n\text{Max} \).