

Basic Problem

1. Write a C++ program that calculates the area of a circle given its radius using appropriate data types and mathematical operations.
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Conditional Statements

1. Write a C++ program that takes an integer input from the user and prints its absolute value. Do not use the built-in 'abs()' function; instead, implement the absolute value calculation manually.

Example Input/Output:

Enter a number: -15

Absolute value: 15

Enter a number: 7

Absolute value: 7

2. Write a C++ program to compute the area of a triangle using the length of its three sides, employing suitable data types and arithmetic operations.
3. How can you implement a C++ program to calculate the volume of a circle using the radius provided by the user, utilizing data types and mathematical expressions?
4. Write a C++ program that prompts the user to select a geometric shape (circle, rectangle, triangle) and then calculates its area using a switch-case statement for shape selection.
5. Write a C++ program that implements a simple calculator capable of performing addition, subtraction, multiplication, and division operations using a switch-case statement for operation selection.
6. Write a C++ program that converts temperature from Celsius to Fahrenheit and vice versa using proper data types and arithmetic operations.

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7. Write a C++ program that determines whether a person is eligible to vote based on their age.

The program should:

- Ask the user to enter their age.
- If the age is 18 or above, print: "You are eligible to vote."
- If the age is below 18, print: "You are not eligible to vote."
- If the user enters a negative age or a non-numeric input, display an appropriate error message.