CPP Problem Design

Subject: Compute Sphere Volume

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Main testing concept: Basic Computing

Basics	Functions
■ C++ BASICS	☐ SEPARATE COMPILATION AND NAMESPACES
☐ FLOW OF CONTROL	☐ STREAMS AND FILE I/O
☐ FUNCTION BASICS	☐ RECURSION
☐ PARAMETERS AND OVERLOADING	☐ INHERITANCE
☐ ARRAYS	☐ POLYMORPHISM AND VIRTUAL FUNCTIONS
☐ STRUCTURES AND CLASSES	☐ TEMPLATES
☐ CONSTRUCTORS AND OTHER TOOLS	☐ LINKED DATA STRUCTURES
☐ OPERATOR OVERLOADING, FRIENDS,AND REFERENCES	☐ EXCEPTION HANDLING
☐ STRINGS	☐ STANDARD TEMPLATE LIBRARY
☐ POINTERS AND DYNAMIC ARRAYS	☐ PATTERNS AND UML

Description:

Given a radius r, please compute and output the volume of a sphere with radius r.
PI = 3.14159265358979323846

Input:

Input radius r(float).The program continues to request input, and ends if EOF is read.

Output:

Output the volume of a sphere, and take the decimal point to the sixth place.

Sample Input / Output：

Sample Input	Sample Output
47.0 21.682	434892.765432 42695.944922

■ Eazy,Only basic programming syntax and structure are required.
☐ Medium,Multiple programming grammars and structures are required.
☐ Hard,Need to use multiple program structures or complex data types.

Expected solving time:

10 minutes

Other notes:

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