**Code:**

#include <iostream>

using namespace std;

// Function to calculate kinetic energy

double kineticEnergy(double mass, double velocity) {

return 0.5 \* mass \* velocity \* velocity; // KE = ½ mv²

}

int main() {

double mass, velocity;

// Prompt user for mass and velocity

cout << "Enter the mass of the object (in kilograms): ";

cin >> mass;

cout << "Enter the velocity of the object (in meters per second): ";

cin >> velocity;

// Calculate kinetic energy

double ke = kineticEnergy(mass, velocity);

// Display the result

cout << "The kinetic energy of the object is: " << ke << " joules." << endl;

return 0;

**Explanation:**

1. **Function Definition**: The kineticEnergy function calculates the kinetic energy using the formula KE=12mv2KE = \frac{1}{2} mv^2KE=21​mv2 and returns the result.
2. **User Input**: The main function prompts the user to enter the mass and velocity of the object.
3. **Calculation and Output**: It calls the kineticEnergy function with the user-provided values and then outputs the calculated kinetic energy.