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W10_Programming_Qs-3

Due on 2023-04-06, 23:59 IST

Consider the following program (in C++11). Fill in the blanks as per the instructions given
below:

- Fill in the blank at LINE-1 with an appropriate template definition.
- Fill in the blank at LINE-2 to complete the header for function `inner_product`.
- Fill in the blank at LINE-3 to define the new type `Tmp`.

The program must satisfy the sample input and output.

Your last recorded submission was on 2023-04-04, 21:10 IST

Select the Language for this assignment. C++

```
#include <iostream>
#include <vector>
#include <type_traits>

template<typename T>
  using remove_reference_t =typename std::remove_reference<T>::type;//LIN

template<typename T1 ,typename T2>     //LINE-2
  void inner_product(const std::vector<T1>& v1 ,const std::vector<T2>& v2
    using Tmp =remove_reference_t<decltype(v1[0]*v2[0])>;
    Tmp sum = 0;









for (int i=0; i < v1.size(); ++i) {
        sum += v1[i] * v2[i];
    }
    std::cout << sum << " ";

} // End of inner_product()

```

```
int main(){
    float a;
    int b;
    double c;
    std::vector<float> fVec;
    std::vector<int> iVec;
    std::vector<double> dVec;
    for(int i = 0; i < 3; i++) {
        std::cin >> a;
        fVec.push_back(a);
    }
    for(int i = 0; i < 3; i++) {
        std::cin >> b;
        iVec.push_back(b);
    }
    for(int i = 0; i < 3; i++) {
        std::cin >> c;
        dVec.push_back(c);
    }
    inner_product(fVec, iVec);
    inner_product(dVec, fVec);
    return 0;
}
```

You may submit any number of times before the due date. The final submission will be considered for grading.

This assignment has Public Test cases. Please click on "Compile & Run" button to see the status of Public test cases. Assignment will be evaluated only after submitting using Submit button below. If you only save as or compile and run the Program , your assignment will not be graded and you will not see your score after the deadline.

Save as Draft | Compile & Run | Submit | Reset

Private Test cases used for Evaluation	Status
Test Case 1	Passed

(assessment?name=208)

- W10_Programming_Qs-1 (/noc23_cs50/progassignment?name=209)
- W10_Programming_Qs-2 (/noc23_cs50/progassignment?name=210)
- **W10_Programming_Qs-3 (/noc23_cs50/progassignment?name=211)**
- Week 10 Feedback Form (unit?unit=112&lesson=120)

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