Quiz 1

1 Problem

Write a simple function to compute the Euclidean distance of two points in Euclidean space. The numbers stored in the vectors are the Cartesian coordinates of the two input points. Please modify `quiz1.hpp` to make the program complete. **Please note that TA will use another main.cpp to grade your code so any hardcoded return value is a bad idea.** Also, you may revise `main.cpp` to test the implementation.

`main.cpp`

```
#include <iostream>
#include "quiz1.hpp"

int main(){

        std::vector<float> Pa({1, 2, 3});
        std::vector<float> Pb({4, 5, 6});

        std::cout << quiz1::EuclideanDistance(Pa, Pb) << std::endl;

        return 0;

        }
```

`quiz1.hpp`

```
#include <vector>

namespace quiz1{

        template<class T>
        T EuclideanDistance(const std::vector<T>& Pa,
                            const std::vector<T>& Pb){

                if( Pa.size() != Pb.size() )
                        throw ":(";

                T Distance = 0;

                // Fill your code here

                return Distance;

                }

        }
```

1.1 How to compile the code?

You can use this command to compile the code:

```
$ clang++ -std=c++14 main.cpp -o main -Wall -Wextra -pedantic -g3
```

2 Output

5.19615

3 How to submit the assignment?

Just upload `quiz1.hpp` to E3. Do not rename the file or put in into any directory.