

6. Which of the following is a legal C++ function definition?

- a.

```
void funcTest(int& u, double& v)
{
    cout << u << " " << v << endl;
}
```
- b.

```
void funcTest(int& u, double& v);
{
    cout << u << " " << v << endl;
}
```
- c.

```
void funcTest(int& u, double& v)
(
    cout << u << " " << v << endl
)
```
- d.

```
void funcTest(int& u, double& v)
[
    cout << u << " " << v << endl;
]
```

Familiar problems solving: the aim of the questions in this part is to evaluate that the student has some basic knowledge of the key aspects of the lecture material and can attempt to solve familiar problems of C++ programming language concept: Standard (predefined) functions, User-Defined Functions, void functions and value and reference parameters

Question 2

(3 marks)

What is the output of the following C++ code?

Code	Output
<pre>#include <iostream> using namespace std; int foo(int& x, int y); int foo(int& X); int main() { int b = 2; int c = 1; cout << "Program Start.\n"; b = foo(c); cout << b << endl; cout << c << endl; cout << "Program End.\n"; return 0; } int foo(int& x, int y) { cout << "x = " << x << endl; cout << "y = " << y << endl; return x + y * 6; } int foo(int& X) { cout << "X = " << foo(X, 2) << endl; X += 2; return X + 1; }</pre>	

Unfamiliar problems solving: This part aims to test the student understanding of the basic concepts of Standard (predefined) functions, User-Defined Functions, void functions and value and reference parameters.

Question 3

(6 marks)

Write a program that takes as input five numbers and outputs the mean (average) and standard deviation of the numbers. If the numbers are x_1, x_2, x_3, x_4 , and x_5 .

Then the mean is

$$M = \frac{(x_1 + x_2 + x_3 + x_4 + x_5)}{5}$$

And the standard deviation is:

$$S = \sqrt{\frac{(x_1 - M)^2 + (x_2 - M)^2 + (x_3 - M)^2 + (x_4 - M)^2 + (x_5 - M)^2}{5}}$$

Your program must contain at least the following functions:

- a function that calculates and returns the mean
- and a function that calculates the standard deviation.

Good Luck