


The code below, once the compiler error has been resolved, will result in a semantic error. That is, the average function (avg) returns a rounded average and not the actual average of the 2 integers (2). For example, avg(9, 10) returns 9 and not 8.5. Identify the statement that needs to be corrected to make sure the semantic error does not occur.

Selected Answer:  347, 420

Correct Answer:  Top Left Coordinates (171, 435) Bottom Right Coordinates (372, 465)


Instructor selection and student response


```
#include <iostream>
using namespace std ;

int main() {
    int a = 10;
    int b = 9;
    double average = avg(a,b);
    cout << "The average of a & b is: "
         << average << endl;
}

double avg(int a, int b) {
    return (a + b) / 2;
}
```

The code below will result in a compiler error. Identify the compiler error by clicking on the code that will cause the error.

Selected Answer:  35, 414

Correct Answer:  Top Left Coordinates (340, 216) Bottom Right Coordinates (498, 253)

Instructor selection and student response


```
#include <iostream>
using namespace std ;


int main() {
    int a = 10;
    int b = 9;
    double average = avg(a,b);
    cout << "The average of a & b is: "
         << average << endl;
}

double avg(int a, int b) {
    return (a + b) / 2;
}
```

Question 3

What is the default access for members of the struct abstract data type?

Selected Answer:  protected

Answers:  public

private

protected


What is the output of the following program?

```
#include <iostream>

using namespace std;


void secret(int v) {
    if(v < 0) {
        cout << "Upper bound (v) may not be negative!" << endl;
    }
    else {
        int current = 1;
        int previous = 0;
        cout << previous;
        if(v >= 1)
            cout << "," << current;
        int temp = current + previous;
        while(temp <= v) {
            previous = current;
            current = temp;
            cout << "," << current;
            temp = current + previous;
        }
        cout << endl;
    }
}

int main() {
    secret(50);
    return 0;
}
```

Selected Answer:  0,1,1,2,3,5,8,13,21,34

Correct Answer:

Evaluation Method


 Exact Match

Correct Answer

0,1,1,2,3,5,8,13,21,34

What is the output of the following code?


```
int counter = 0;
while(counter < 20) {
    if (counter == 10)
        cout << "Looping..." << endl;
    if(counter > 15) break ;
    ++counter ;
}
```

Selected Answer:  It will print Looping an infinite number of times.

Answers:

It will print Looping at least 10 times.

It will print looping 15 times before breaking out of the loop.

 It will print Looping an infinite number of times.

It will print Looping once.

It will print Looping 10 times.

Given the code below:

```
const int a = 1;
const int *b = new int(2);
int *const c = new int(3);
int const *const d = new int(4);
int *e = new int(5);
```

For each of the statements below indicate whether that operation is valid or invalid. Answer with Y if it is valid and N if it is not valid.

- i) a = 8; [i]
- ii) *b = 9; [ii]
- iii) *c = 10; [iii]
- iv) d = c; [iv]
- v) e = b; [v]
- vi) e = c; [vi]

Specified Answer for: i ☒ Y

Specified Answer for: ii ☒ Y

Specified Answer for: iii ☒ N

Specified Answer for: iv ☒ N

Specified Answer for: v ☒ Y

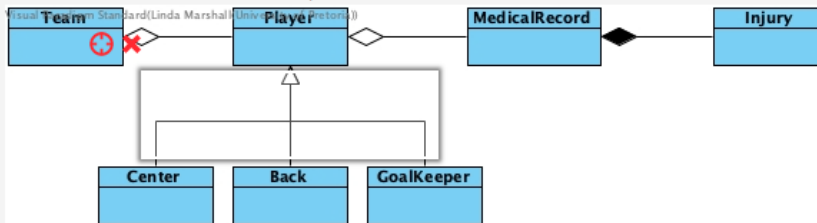
Specified Answer for: vi ☒ N

Identify the generalisation relationship by clicking on the relationship in the figure given below.

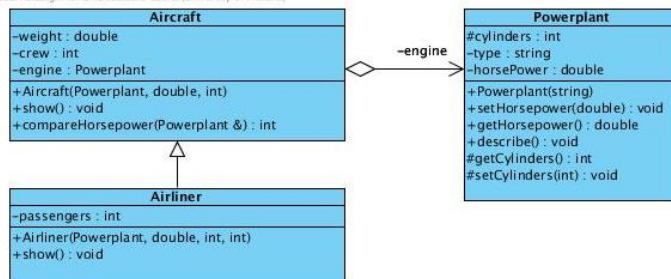
Selected Answer: ☒ 68, 26

Correct Answer: ☒ Top Left Coordinates (95, 46) Bottom Right Coordinates (303, 108)

Instructor selection and student response



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i) The visibility of the weight attribute feature. [i]

ii) A class member function that is protected. [ii]

iii) The visibility of the majority of the class members is [iii].

iv) The relationship between Aircraft and Airliner. [iv]

v) The relationship between Aircraft and Powerplant. [v]

vi) Will the default constructor suffice for class Aircraft (Yes/No)? [vi]

Specified Answer for: i ☒ private

Specified Answer for: ii ☒ getCylinder


Specified Answer for: iii ☒ public

Specified Answer for: iv ☒ uses-a

Specified Answer for: v ☒ has-a

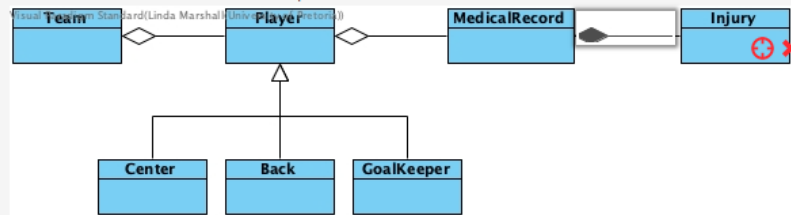
Specified Answer for: vi ☒ No

Identify the composition relationship by clicking on the relationship in the figure given below.











Selected Answer:  556, 30

Correct Answer:  Top Left Coordinates (418, 4) Bottom Right Coordinates (491, 29)

Instructor selection and student response



Match the feature of a class member to the described UML Syntax.

Question	Correct Match	Selected Match
protected	 D, preceded by the # symbol	 D, preceded by the # symbol
static	 C, written underlined	 C, written underlined
private	 E, preceded by the - symbol	 E, preceded by the - symbol
public	 B, preceded by the + symbol	 B, preceded by the + symbol
virtual	 A, written in italics	 A, written in italics