

CS120 Lab 7 Section 6

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Quiz for Week 6 Answers

All of the following questions are based on the class position, which is defined as:

```
class position {  
private:  
    int x;  
    int y;  
public:  
    int distance();  
};
```

- ▶ Write the code to declare a single object named **center** of type position:
position center;
- ▶ Write code to have the object named center call the **distance()** function.
center.distance();

Quiz for Week 6 **Answers** (continued)

All of the following questions are based on the class position, which is defined as:

```
class position {  
private:  
    int x;  
    int y;  
public:  
    int distance();  
};
```

- ▶ What are the data members of the class?
x and y.
- ▶ What are the member functions (methods) of the class?
distance().
- ▶ If there was a constructor function for this class, what would the name of the function be?
position()

Quiz for Week 7 Answers

(5 pt) Answer the following questions based on the following array declaration:

```
int hand[5];
```

- ▶ How many elements (pieces of data) can the array hand store?

Answer: 5

Declare an array:

```
int arrayName [ lengthOfArray ];
```

and `int` is arrayName's Data Type.

- ▶ The index of the first element of the array?

Answer: 0

Array indices are 0-based.

- ▶ What is the index of the last element of the array?

Answer: 4

Since array indices are 0-based, index of the last element of the array comes out to be `lengthOfArray - 1`.

Quiz for Week 7 **Answers** (continued)

(5 pt) Answer the following questions based on the following array declaration:

```
int hand[5];
```

- ▶ Write a line of code to assign the second element of the array the value 7.

Answer: `hand[1] = 7;`

Since array indices are **0-based**, index of the **second** element of the array comes out to be **2 - 1**, and continue...

- ▶ Write a line of code to print the last element of the array.

Answer: `cout << hand[4];`

Since array indices are **0-based**, index of the **last** element of the array comes out to be **lengthOfArray - 1**, and continue...

Scores of Quiz Week 6

► Lab 5 Score Distribution

Score	8.5	9	9.5	10	Missed
Section 4 Count (22)	1	2	8	9	2
Section 6 Count (24)	0	10	0	3	11

► Quiz for Week 6 Distribution:

Score	0	1	2	3	4	5	Missed
Section 4 Count (22)	1	1	3	7	5	3	2
Section 6 Count (24)	0	0	2	9	3	3	7

► Lab 6 Score Distribution

Score	9	11	12	13	Missed
Section 4 Count (22)	0	1	8	11	2
Section 6 Count (24)	2	2	1	9	10

Lab 6 Random Number Generator

- ▶ `#include <cstdlib>`
- ▶ Prototype: `int rand (void);`
- ▶ This number is generated by an algorithm that returns a sequence of apparently non-related numbers each time it is called.
- ▶ Returns a pseudo-random integral number in the range between 0 and `RAND_MAX`.
- ▶ `RAND_MAX` is a constant defined in `<cstdlib>`.
- ▶ Examples:
 - ▶ `v1 = rand() % 100;`
 - ▶ `v2 = rand() % 100 + 1;`
 - ▶ `v3 = rand() % 30 + 1985;`
- ▶ Seed
 - ▶ This algorithm uses a seed to generate the series, which should be initialized to some distinctive value using function `srand`.
 - ▶ ** initialize random seed: **
`srand (time(NULL));`

Lab 6 Specific Requirements

- ▶ **cscheckin:**
 - ▶ **Source Program** only
 - ▶ program name: **Lab7Sec6.cpp**
- ▶ **Hard Copy:**
 - ▶ **Source Program:** **Lab7Sec6.cpp**
 - ▶ **Script Output** of the program:
- ▶ **Extra Credits:**
 - ▶ **Extra Work** are required in order to extra points.
 - ▶ It won't be easy to get all **3** extra credits, so make sure you make effort to earn them.