

{{{questionNumber}}}. Which of the following is true about dynamic arrays in C++?

- A. [Correct Answer] [Your Answer] They are stored contiguously in memory.
- B. They have a length member variable associated with them.
- C. Values are always automatically initialized to a default value when you create an array regardless of its type.
- D. More than one of the other options are true.
- E. Arrays can only be made on the stack.

{{{questionNumber}}}. Consider this simple code, and assume the puppy class has default and copy constructors defined:

```
puppy * plantANew(puppy & orig) {  
    puppy * seedling = new puppy(orig);  
    return seedling;  
}  
  
int main() {  
    puppy f1; puppy * f2;  
    f2 = plantANew(f1);  
    return 0;  
}
```

How many times is a puppy constructor called in the example above?

- A. Three times.
- B. [Correct Answer] Twice.
- C. [Your Answer] One time.
- D. Never, because this code has a compiler error.
- E. Never, but the code executes with no errors.

{{{questionNumber}}}. Consider the following code:

```
#include <iostream>  
using namespace std;  
  
void foo(int bar) {  
    bar = 5;  
}  
  
int main() {  
    int bar = 9;  
    foo(bar);  
    cout << bar << endl;  
    return 1;  
}
```

What is the result of compiling and running this code?

- A. This code has a compilation error.
- B. The number 5 is printed to the screen.
- C. Nothing is printed to the screen.
- D. The number 1 is printed to the screen.
- E. [Correct Answer] [Your Answer] The number 9 is printed to the screen.

{{{questionNumber}}}. Examine the following program and determine the output.

```
#include <iostream>  
using namespace std;  
int foo (int &a, int &b)  
{  
    b = a*a;  
    a++;  
    return b;  
}  
  
int main()  
{  
    int x=5, y=2;  
    int z = foo(x,y);  
    cout << z <<"\t" << y << "\t" << x;  
  
    return 0;  
}
```

Which of the following options below would be printed out by the program?

- A. 25 25 5
- B. 25 2 6
- C. None of the other answers are correct.
- D. [Correct Answer] [Your Answer] 25 25 6
- E. 25 2 5