Subject: OT: C++ Recursion
Posted by icedog90 on Wed, 08 Mar 2006 03:25:59 GMT
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Anyone who knows at least the basics of C++, can you help me try to understand this damn awful question? My head hurts like hell by going over and over again trying to figure out why the answer is number 3. First, I was beginning to understand why it was 3, and now (after going over it so many times) my head is so fried I don't even remember how it works. I'm done trying to figure this out, my head hurts a lot and it's just pissing me off.

Remember, the answer is 3 (letter C) but I want to know why.

(This is a review I brought home to get ready for a test)

Thanks.

Subject: Re: OT: C++ Recursion
Posted by Dave Anderson on Wed, 08 Mar 2006 03:42:23 GMT
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I don't have any of my C++ programming books anymore, and I forgot what the % operator stands for. If you can tell me that, I may be able to figure it out.

EDIT: Nevermind, I remember now. the % operator is a modulus. Example: int rem = 4 % 3;

Of course you probobly already know that...lol. I will further try to figure this out.

What are your thoughts on this so far?

Subject: Re: OT: C++ Recursion
Posted by Oblivion165 on Wed, 08 Mar 2006 04:28:53 GMT
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Ah ok, a number divided by itself = 1.

If that doesnt get you there, nothing will.

Subject: Re: OT: C++ Recursion
Posted by CPUKiller on Wed, 08 Mar 2006 04:33:56 GMT
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Looking Recursively:

1 + ValueOf(5) (11%2-> 1, 11/2 -> 5)
  1 + ValueOf(2) (5%2-> 1, 5/2 -> 2)
    0 + ValueOf(1) (2%2-> 0, 2/2 -> 1)
      1 + ValueOf(0) (1%2-> 1, 1/2 -> 0)

Subject: Re: OT: C++ Recursion
Posted by Ryan3k on Wed, 08 Mar 2006 04:56:08 GMT
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CPUKiller has pretty much got it, I don't know C++ myself, but I know Java, and all you need to know is that the '%' operator is for modular division, and it gives you the remainder of a/b.

For example,
10 % 3 = 1
10 % 10 = 0
12 % 5 = 2

Another important note is that because it is an int, it will truncate decimals. In the first runthrough of ValueOf, when you divide 11 by 2, you get 5.5, right? Well, it won't round it up to 6. It truncates the decimal, and you end up with 5.

5 becomes the new 'N', passed as parameter to ValueOf... etc. etc.

Subject: Re: OT: C++ Recursion
Posted by icedog90 on Wed, 08 Mar 2006 05:03:10 GMT
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CPUKiller wrote on Tue, 07 March 2006 20:33Looking Recursively:

1 + ValueOf(5) (11%2-> 1, 11/2 -> 5)
  1 + ValueOf(2) (5%2-> 1, 5/2 -> 2)
    0 + ValueOf(1) (2%2-> 0, 2/2 -> 1)
      1 + ValueOf(0) (1%2-> 1, 1/2 -> 0)

Thanks a ton... I fully understand it now. That got rid of the lock in my brain.

Thanks everyone else.

Subject: Re: OT: C++ Recursion
Posted by Ryan3k on Wed, 08 Mar 2006 05:10:46 GMT
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Sometimes you just have to put it down and look at it later. When I took my Calculus II final last semester, I was so nervous and had been studying so much that I literally forgot Calculus for the first 10 minutes of the exam. I just let go for a little while, tried to calm down, then everything came back to me.

I forgot all of my +C's, but I still ended up with an A on it.

Subject: Re: OT: C++ Recursion
Posted by icedog90 on Wed, 08 Mar 2006 05:23:52 GMT
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Yeah, that's pretty much what went on with me. Thanks for the advice. Waiting on it did help a lot.

...and nice job on the grade, hehe.

Subject: Re: OT: C++ Recursion
Posted by Dave Anderson on Wed, 08 Mar 2006 06:20:22 GMT
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Well, seems that I have learned a thing or two from this topic:

Quote:For example,
10 % 3 = 1
10 % 10 = 0
12 % 5 = 2

I thank you very much for refreshing my memory.

EDIT: Since this is the same subject, I just wanted to let y'all know that when I finish my website, (which is taking forever because it gets boring at times), I will have a complete section on C++ where you can go if you want to learn the basics of C++. It will be pretty explanatory and should be pretty straight foward. When I first learned C++, I pretty much went to my local library, checked out a C++ book, and was writing very basic programs within the hour I started reading.

My object for providing this section on my site, is I am hoping that others interested in C++ can use what I have learned to learn it themselves.

Subject: Re: OT: C++ Recursion
Posted by icedog90 on Wed, 08 Mar 2006 06:22:32 GMT

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Modulus is a bitch... because it's easy to forget.

Subject: Re: OT: C++ Recursion
Posted by Sir Kane on Wed, 08 Mar 2006 22:32:32 GMT
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Wonder what happens if you __forceinline that function lol

Subject: Re: OT: C++ Recursion
Posted by =HT=T-Bird on Thu, 09 Mar 2006 02:03:41 GMT
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Silent Kane wrote on Wed, 08 March 2006 16:32Wonder what happens if you __forceinline that function lol
If the argument was a constant-expression, I'd say that most sensible compilers capable of unit-at-a-time compilation would be able to evaluate the entire mess at compile time (it's a pure function).