
Subject: OT: Can someone explain this?
Posted by [Renx](#) on Fri, 23 Dec 2005 04:30:45 GMT
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<http://www.google.com/search?client=opera&rls=en&q=1.0+-+0.9+-+0.1&sourceid=opera&ie=utf-8&oe=utf-8>

I haven't really looked into that much, but it appears to me that this calculation should return 0?

Subject: Re: OT: Can someone explain this?
Posted by [Hydra](#) on Fri, 23 Dec 2005 04:35:14 GMT
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You broke google.

Subject: Re: OT: Can someone explain this?
Posted by [cheesesoda](#) on Fri, 23 Dec 2005 04:51:15 GMT
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That is extremely weird.

I've tried many differet combinations. Such as:

1-.9-.1
1-0.9-0.1
(1.0-0.9)-0.1
(1-0.9)-0.1
etc...

All of them come up $-2.77555756 \times 10^{-17}$. Now, $1.0-(0.9-0.1)$ turns out .2, which is correct.

Subject: Re: OT: Can someone explain this?
Posted by [Renx](#) on Fri, 23 Dec 2005 04:52:02 GMT
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I've conquered Google. I've beaten the beast. I am indeed supreme.

Subject: Re: OT: Can someone explain this?
Posted by [xptek](#) on Fri, 23 Dec 2005 04:54:44 GMT
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Canadian.

Subject: Re: OT: Can someone explain this?
Posted by [cypher909](#) on Fri, 23 Dec 2005 04:58:31 GMT
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rofl awesome!

Subject: Re: OT: Can someone explain this?
Posted by [Jecht](#) on Fri, 23 Dec 2005 05:46:54 GMT
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Renx wrote on Fri, 23 December 2005 17:52 I've conquered Google. I've beaten the beast. I am indeed supreme.

Today Google, tomorrow: The World!

Subject: Re: OT: Can someone explain this?
Posted by [warranto](#) on Fri, 23 Dec 2005 07:28:50 GMT
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Heh, well -0.000000000277555756 is fairly close to 0...

Interestingly enough, $-0.000000000277555756 + .1 + .9 = 1$

I know there was a mathematical error within the Pentium 2 chip, perhaps google runs off one?

Subject: Re: OT: Can someone explain this?
Posted by [Goztow](#) on Fri, 23 Dec 2005 08:10:53 GMT
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Actually this is so close to 0 that all will prolly agree it is zero . But nice find...

Subject: Re: OT: Can someone explain this?
Posted by [sniper12345](#) on Fri, 23 Dec 2005 11:08:40 GMT
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the distance between two intersecting lines gets smaller as it reaches the intersection. However, the distance can get infinitely smaller before it reaches the intersection (0.01, 0.001, 0.0000001 etc). Doesn't that kind of make it impossible for the lines to intersect?

Subject: Re: OT: Can someone explain this?

Posted by [Lijitsu](#) on Fri, 23 Dec 2005 14:27:43 GMT

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Hydra wrote on Thu, 22 December 2005 23:35 You broke google.

Damn you! Damn you to hell for what you've done! ...Wait, we can still use it? Meh, nevermind.

Subject: Re: OT: Can someone explain this?

Posted by [Renx](#) on Fri, 23 Dec 2005 14:45:09 GMT

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sniper12345 wrote on Fri, 23 December 2005 07:08 the distance between two intersecting lines gets smaller as it reaches the intersection. However, the distance can get infinitely smaller before it reaches the intersection (0.01, 0.001, 0.0000001 etc). Doesn't that kind of make it impossible for the lines to intersect?

No, you're thinking of asymptotes.

Subject: Re: OT: Can someone explain this?

Posted by [=HT=T-Bird](#) on Fri, 23 Dec 2005 19:30:25 GMT

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Mathematics assumes that numbers have infinite precision. However, that's not possible with computers that use floating-point arithmetic, so you get round-off that gives you really tiny numbers instead of 0. Example of the WRONG way to do things (in C++):

```
float f1 = 2.0 - 1.0;
float f2 = 1.0;
if (f1 == f2)
std::cout << "this might not happen";
else
std::cout << "oops...floating point round-off";
```

(I still haven't figured out how to insert tabs in forum posts)
and the RIGHT way:

```
float f1 = 2.0 - 1.0;
float f2 = 1.0;
if (std::fabs (f1 - f2) < std::numeric_limits <float>::epsilon ())
std::cout << "this works";
```

I hope this helps

Subject: Re: OT: Can someone explain this?
Posted by [icedog90](#) on Fri, 23 Dec 2005 19:45:57 GMT
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Why don't you use "using namespace std;" so that you don't have to put std:: in front of everything from the iostream library?

Subject: Re: OT: Can someone explain this?
Posted by [=HT=T-Bird](#) on Fri, 23 Dec 2005 19:57:53 GMT
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icedog90 wrote on Fri, 23 December 2005 13:45 Why don't you use "using namespace std;" so that you don't have to put std:: in front of everything from the iostream library?
It's bad form. Dragging in namespaces wholesale leads to name conflicts m8...p.s. it's the STL, not the iostream library

Subject: Re: OT: Can someone explain this?
Posted by [Renx](#) on Fri, 23 Dec 2005 20:12:36 GMT
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It's not bad form. Using cout/cin is what's bad.

Subject: Re: OT: Can someone explain this?
Posted by [icedog90](#) on Fri, 23 Dec 2005 21:09:15 GMT
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It doesn't even matter when you get into OpenGL or DirectX.

Subject: Re: OT: Can someone explain this?
Posted by [Aidoneus](#) on Fri, 23 Dec 2005 21:25:41 GMT
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gbull wrote on Thu, 22 December 2005 23:46 Renx wrote on Fri, 23 December 2005 17:52 I've conquered Google. I've beaten the beast. I am indeed supreme.

Today Google, tomorrow: The World!

Surely that's the wrong way round? "Today: The World. Tomorrow: Google!"
