Re: function without arithematic operator

Source: http://coding.derkeiler.com/Archive/C_CPP/comp.lang.c/2005-08/msg00500.html

- *From*: anon7843@xxxxxxxxxxx (Anonymous 7843)
- *Date*: Tue, 02 Aug 2005 18:52:10 GMT

In article <1122991677.514736.32910@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx>,
<rahul8143@xxxxxxxxx> wrote:
>
>
> hello,
> Is it possible to write a math library function sqrt in C without
> arithmatic operators(*,+)?
> can anyone give me hints to do that?
> regards,
> rahul

If it's in the math library it doesn't have to be implemented
in C, so if the processor has a sqrt instruction you can just
use that. That's cheating (kind of) because it's likely that the
processor itself will do operations similar to * and + in order
to execute.

exp(log(x)/2.0) is workable, but divide is an arithmetic
operator, and although you didn't specifically mention it in
your list and I can't tell from your words whether the list
is meant to be exhaustive or to exemplify. Again, exp and
log are likely to do some arithmetic operations behind
the scenes.

It's _probably_ possible to use shifts and bitwise operations
to implement an integer sqrt function. Another integer-only
solution would be something really lame like:

```
int sqrt(int x)
{
if (x < 4) return 1;
if (x < 9) return 2;
if (x < 16) return 3;
if (x < 25) return 4;
if (x < 36) return 5;
/* and so on, up to sqrt(INT_MAX) */
}
```

But perhaps you have handed in your homework by now and nothing

I have said is helpful.
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7842++
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- ***Follow−Ups***:
  - ♦ ***Re: function without arithematic operator***
    - ◊ *From:* Charles M. Reinke

- ***References***:
  - ♦ ***function without arithematic operator***
    - ◊ *From:* rahul8143

- Prev by Date: ***Re: something to do with void ****
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