

# a curious integral

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Hello,

Can anyone suggest how to evaluate the following integral:

$$\int \frac{1}{v \sqrt{v^2 a + b v + c}} dv$$

Maple finds a surprisingly clean/simple answer:

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> value(%) assuming c>0;
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$$\frac{\operatorname{arctanh}\left(\frac{2c + bv}{2\sqrt{c(v a + b v + c)}}\right)}{c}$$

I'm trying to understand where the "2c+bv" comes from....

thanks,  
bugalore.

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- *Follow-Ups:*
    - ◆ ***Re: a curious integral***  
    ◇ *From:* Michael Jørgensen
    - ◆ ***Re: a curious integral***  
    ◇ *From:* Narcoleptic Insomniac

a curious integral

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