

Re: convolution problem

Source: <http://sci.tech-archive.net/Archive/sci.math/2005-09/msg01421.html>

- *From:* "Jon Slaughter" <Jon_Slaughter@xxxxxxxxxxx>
 - *Date:* Wed, 7 Sep 2005 05:19:32 -0500
-

"buda" <kulghan@xxxxxxxxxxx> wrote in message
[news:dfmcf5\\$2bc\\$1@xxxxxxxxxxxxxxxxxxxx](mailto:news:dfmcf5$2bc$1@xxxxxxxxxxxxxxxxxxxx)

> Hello,

>

> I have a problem understanding the transition between (11) and (12) at
> this location <http://mathworld.wolfram.com/Convolution.html> (this is not
> the actual problem that concerns me, but the reason for it troubling me is
> the same). How can we say that the last line constitutes a product, when
> the x in (12) should depend upon u which is the variable in the "outer"
> integral? (I assume here that the x in (12) is derived from some sort of
> substitution from (x-u) in (11)).

>

this is not the case. You must realize that

$\int(g(x-u), x=-\infty..0)$

is independent of u then you will see it is just a constant and the constant
can be factored out of the integral.

(you can see that the above integral is independent of u by many ways... I
can think of 3 immediately...)

(ofcourse this assumes certain things but)

> I would appreciate any help on this matter.

> Thank you in advance.

>

Jon

.

- *References:*
 - ◆ [*convolution problem*](#)

Re: convolution problem

◇ *From:* buda

- Prev by Date: ***Re: sum of zetas***
- Next by Date: ***Re: what makes it true?***
- Previous by thread: ***Re: convolution problem***
- Index(es):
 - ◆ ***Date***
 - ◆ ***Thread***