Re: for all real x and y

Source: http://sci.tech−archive.net/Archive/sci.math/2008−01/msg04355.html

- *From*: tommy1729 <tommy1729@xxxxxxxxx>
- *Date*: Sun, 27 Jan 2008 15:09:46 EST

alain wrote:

> On 27 jan, 18:37, tommy1729 <tommy1...@xxxxxxxxx>
> wrote:
>
>> alain wrote:
>>
>>> On 27 jan, 00:24, tommy1729 <tommy1...@xxxxxxxxx>
>>> wrote:
>>>
>>>> for all real x and y (and preferably complex
>
> too)
>
>>>> f1(x+y) =
>>>
>>> f2(y)f3(x)f4(x)+f2(x)f3(y)f4(x)+f2(x)f3(x)f4(y)
>>>
>>>> +
>
> f2(x)f3(y)f4(y)+f2(y)f3(x)f4(y)+f2(y)f3(y)f4(x)
>
>>>> f2(x+y) =
>>>
>>> f1(y)f3(x)f4(x)+f1(x)f3(y)f4(x)+f1(x)f3(x)f4(y)
>>>
>>>> +
>
> f1(x)f3(y)f4(y)+f1(y)f3(x)f4(y)+f1(y)f3(y)f4(x)
>
>>>> f3(x+y) =

f1(y)f2(x)f4(x)+f1(x)f2(y)f4(x)+f1(x)f2(x)f4(y)

+

f1(x)f2(y)f4(y)+f1(y)f2(x)f4(y)+f1(y)f2(y)f4(x)

f4(x+y) =

f1(y)f2(x)f3(x)+f1(x)f2(y)f3(x)+f1(x)f2(x)f3(y)

+

f1(x)f2(y)f3(y)+f1(y)f2(x)f3(y)+f1(y)f2(y)f3(x)

with f1 f2 f3 and f4 distinct.

regards
tommy1729

Bonjour,

for y = 0 , we've got :
f1(0)+f1(x) =
(f2(0)+f2(x))*(f3(0)+f3(x))*(f4(0)+f4(x))
+ f1(0)
+ f1(0) −f2(0)*f3(0)*f4(0) ,
let us put gi(x)=fi(0)+fi(x) and f1(0)
−f2(0)*f3(0)*f4(0) = c1
...ci,

Alain

???

im not sure that is correct , since i see " minus

f2 " for example.

even if correct , what are you trying to tell me ?

thanks for your reply though.

regards
tommy1729− Masquer le texte des messages précédents

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− Afficher le texte des messages précédents −

Bonsoir,

for y = 0 , put gi(x)=fi(0)+fi(x)
c1 = f1(0)−f2(0)*f3(0)*f4(0) , ci = fi(0) −...

we'll have :
g1(x) = g2(x)*g3(x)*g4(x)+c1
g2(x) = g1(x)*g3(x)*g4(x)+c2
g3(x) = g1(x)*g2(x)*g4(x)+c3
g4(x) = g1(x)*g2(x)*g3(x)+c4

So g1(x)^2 − c1*g1(x) = g2(x)^2 − c2*g2(x) =...
= g1*g2(x)*g3(x)*g4(x) , a common value

Alain

i havent got time to check that now , but if you are correct that is intresting.

thanks.

we also have for i mod 4.

fi(2x) = 6*f(i+1)(x)*f(i+2)(x)*f(i+3)(x)

but the big questions are

can fi be expressed in standard functions ?

can it be expressed in an integral ?

regards
tommy1729
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