
Subject: Re: combinatory analysis with restrictions
Posted by [Y.T.](#) on Thu, 09 Dec 2004 05:29:39 GMT
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If I had to do it once, I'd brute-force it:

```
IDL> for a=0.,1.,.1 do for b=0.,1.,.1 do for c=0.,1.,.1 do $  
IDL>   if a+b+c eq 1. then print,a,b,c
```

or some such.

If I had to do this many times, I'd consider pre-filling an array vaguely like this

```
IDL> r=intarr(11,11,11)  
IDL> for i=0,10 do for j=0,10 do for k=0,10 do $  
IDL>   if i+j+k eq 10 then r[i,j,k]=1
```

and then later simply looking up $r[a*10,b*10,c*10]$...
cordially

Y.T.

--

Remove YourClothes before you email me.

Subject: Re: combinatory analysis with restrictions
Posted by [Craig Markwardt](#) on Thu, 09 Dec 2004 06:41:01 GMT
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feduc@lycos.com (Francois) writes:

```
> Hello,  
>  
> Considering 3 variables (a,b,c) that can take 11 discrete values  
> between 0 and 1: [0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9,  
> 1.0]
```

Why don't you make a 2D array of (11,11) corresponding to the sum of all possible values of A and B?

For each value of (A+B), the value of C is immediately determined as $1-(A+B)$, or it does not exist if $(A+B)>1$. Thus, for each entry in the matrix, you can read off A and B from the column and row labels, and C from $1-(A+B)$.

Good luck,

Craig

```
aa = lindgen(11) # (lonarr(11)+1) ;; A-only matrix
bb = (lonarr(11)+1) # lindgen(11) ;; B-only matrix
cc = 10-(AA+BB)
wh = where(cc GE 0)
a = wh MOD 11 & b = wh/11 & c = cc(wh)
```

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Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
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Subject: Re: combinatory analysis with restrictions
Posted by [fleduc](#) on Thu, 09 Dec 2004 15:44:51 GMT
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Thanks for the answer.
But what is considering five variables ?

F.

Subject: Re: combinatory analysis with restrictions
Posted by [Craig Markwardt](#) on Sat, 11 Dec 2004 02:15:12 GMT
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fleduc@lycos.com writes:
> Thanks for the answer.
> But what is considering five variables ?

I don't know what you mean. You didn't ask about five variables, only
three: A, B, C.

Craig

--

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