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Subject: Re: Center of mass???

Posted by [Jonathan Joseph](#) on Tue, 09 Nov 1999 08:00:00 GMT

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Well, I'm not going to take up JD's challenge,  
but are you all sure you are answering the right  
question?

I mean sure, great, if you happen to have  
an  $M \times N$ .... array of masses then you've got  
everything you need. But when I first read  
Anders' post, I thought, "gee that sounds simple."

I thought of  $N$  masses at  $N$  locations,

$m$  = 1D array of  $N$  masses

$pos$  =  $D \times N$  array of locations of the masses in  $D$  dimensions

then:

```
s=size(pos, /dimensions)
```

```
mm = m ## replicate(1,s(0))
```

```
cm = total(pos * mm, 2) / total(m)
```

Please someone correct me if I'm wrong.

Also, Is there a better way of multiplying  
an  $M \times N$  array by a one dimensional array of  
length  $N$  such that each row of the  $M \times N$  array  
is multiplied by the corresponding element  
of the one dimensional array?

-Jonathan

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