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Subject: greater than X and less than Y

Posted by [bradbury](#) on Thu, 28 Aug 2003 17:34:17 GMT

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Here is an easy one:

I can find the location of data in my array at the top and at the bottom of it's range. But how do I find the location of the data in the middle of this range.

example:

```
data=[10,35,11,5,17,5,24,13,22,30,8,20,1,16,19,31,29,3,23,33 ,37]
```

```
N=size(data,/N_elements)
```

```
; returns a vector of subscripts that allows access  
; to the elements of "data" in ascending order  
sort_data=sort(data)
```

```
; returns "data" values in ascending order  
new_data=data[sort_data]
```

```
; calculates "data's" 66th percentile  
top66=new_data(0.66*N)
```

```
; returns vector with ones in place of values in  
; top 66 percentile of "data"  
high66=data gt top66
```

```
; calculates "data's" 33rd percentile  
bot33=new_data(0.33*N)
```

```
; returns vector with ones in place of values in  
; bottom 33 percentile of "data"  
low33=data lt bot33
```

Using a similar method (or not) how would I create a "mid33," and thus gain access to the data in the range between the bottom 33rd and the upper 66th percentiles.

SO, I guess my problem is with using the operators "gt" and "lt."

Thanks very much, in advance...

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