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...

Subject: Re: greater than X and less than Y

bradbury@geo.umass.edu (James Bradbury) writes:
...
> ; 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.

The problem is easily solved when you use the AND operator as well.

mid33 = (data GE bot33) AND (data LE top33)

Craig

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Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
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