Subject: Unique combinations from a 1d array
Posted by dapoulio on Wed, 14 Jan 2004 22:03:16 GMT
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Does anyone know of a more efficient means to determine the set of all unique combinations of 2 from a 1d array? The following is an approach that works but for large arrays -say 3000 or more elements it is very slow. Part of the problem is due to memory because the number of paired comparisons becomes very large ï¿½ i.e. for 3000 elements the total number of combinations is 4498500. Writing the paired difference results to a temporary file helped considerably, but is still far too slow. Any ideas would be much appreciated.

Here is the code I have:

```
X = [X1, X2, X3ï¿½..Xn+1]
n = n_elements(X)
d = make_array(1, /float)
for i=0, n-1 do for j=0, n-1 do begin
  if i le j then begin
   d = [d, X[i] - X[j]]
  endif
endfor
d = d[1:n-1]
```

Thanks in advance,

Darren