

Re: Sumproduct(N and --

Source:

<http://www.tech-archive.net/Archive/Excel/microsoft.public.excel.worksheet.functions/2006-11/msg00196.html>

- *From:* "Harlan Grove" <hrlngrv@xxxxxxx>
 - *Date:* 1 Nov 2006 14:28:09 -0800
-

BobS wrote...

I use array formula quit often and was wondering if someone could please explain the use of sumproduct(N and sumproduct(-- versus just sumproduct(. I've seen the N and -- quit a bit in newsgroup responses, but am not clear on their function. Thanks.

Both coerce boolean values to numeric values, TRUE to 1 and FALSE to 0. This is necessary because SUMPRODUCT skips anything other than numbers. For example,

```
=SUMPRODUCT({1;2;3;4}<=3,{1;10;100;1000})
```

returns 0 because this is equivalent to

```
=SUMPRODUCT({FALSE;FALSE;TRUE;TRUE},{1;10;100;1000})
```

and SUMPRODUCT skips all the items in the first argument. However,

```
=SUMPRODUCT(--({1;2;3;4}<=3),{1;10;100;1000})
```

returns 1100 because this is equivalent to

```
=SUMPRODUCT({0;0;1;1},{1;10;100;1000})
```

N({1;2;3;4}<=3) returns the same thing as --({1;2;3;4}<=3), but N involves a function call, and that often bumps up against Excel limit of 7 nested function calls. Also, N's semantics when passed array arguments is strictly speaking undocumented, so it could change in future (but that's unlikely).

.