

Re: Name of this property? $F(A^B^C) = F(A)^F(B)^F(C)$

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Source: <http://www.derkeiler.com/Newsgroups/sci.crypt/2006-08/msg01557.html>

- *From:* dwmalone@xxxxxxxxxxxxx (David Malone)
 - *Date:* 28 Aug 2006 09:19:23 +0100
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Francois Grieu <fgrieu@xxxxxxxxxxxxx> writes:

A wide class of functions have the property that
for any 3 inputs A, B, C

$$F(A^B^C) = F(A)^F(B)^F(C)$$

Is there a name for this property, or this class of functions?

This class is a superset of the class of functions such that
for any 2 inputs A, B

$$F(A^B) = F(A)^F(B)$$

For two objects, the name depends a little on the type of operation
that \wedge is. Most likely you'd call F a homomorphism. You might call
F linear, though usually linear often implies a little more.

For three objects, I'm not sure what you'd call it. In situations
where you have a bit more structure, the three object version will
imply the two object version (for example, if you can find an object
E such that $E^A = A$ and $F(E)^F(A) = F(A)$ for all A).

David.