
Subject: Re: IDL mathematics

Posted by [sjt](#) on Thu, 01 Sep 1994 12:13:42 GMT

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dean@phobos.cira.colostate.edu wrote:

: How come the following expression gives the wrong answer.

: $J = 201 + ((1461 * (1994 + 4799)) / 4) - (3 * ((1994 + 4899) / 100) / 4) - 2465022$

: $J = -2457713$

: It should be:

: $J = 201 + ((1461. * (1994 + 4799.)) / 4.) - (3. * ((1994 + 4899.) / 100.) / 4.) - 2465022.$

: $J = 16270.5$

: Kelly Dean

The problem is IDL's conversion rules. You have two problems here:

a) $1461 * (1994 + 4799)$ is a combination of 3 ints and is thus evaluated as

an int whereas it needs to be a long or float to get the right answer

b) Division of integers is an integer devide e.g. $3/2 = 1$ and $4/5 = 0$.

I think the minimal modification to get the right answer is:

$J = 201 + ((1461. * (1994 + 4799)) / 4) - (3 * ((1994 + 4899) / 100.) / 4) - 2465022$
 ^ ^

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"If all else fails--read the instructions!"

O
-- V
