
Subject: Re: fractional powers of negative numbers?
Posted by [Jack Saba](#) on Mon, 28 Apr 1997 07:00:00 GMT
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IDL is computing $-(5.^{1.51})$ in your example. If you try $(-5.)^{1.51}$, you will get an error.

Med Bennett wrote:

```
>
> Can someone explain this to me? Is it possible to compute the fractional
> power of a negative number? IDL does it on single negative values but
> not on arrays containing negative values.
>
> IDL> print,findgen(11)-5
>   -5.00000  -4.00000  -3.00000  -2.00000
>   -1.00000  0.000000  1.00000  2.00000
>    3.00000  4.00000  5.00000
> IDL> print,(findgen(11)-5)^1.51
>   -1.#IND0  -1.#IND0  -1.#IND0  -1.#IND0
>   -1.#IND0  0.000000  1.00000  2.84810
>    5.25355  8.11168  11.3617
> % Program caused arithmetic error: Floating illegal operand
> IDL> print,-2.^1.51
>   -2.84810
> IDL> print,-5.^1.51
>   -11.3617
>
> Med Bennett
> bennettm@boulder.pti-enviro.com
```
