

## Re: Power of 2 divisible by 3

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*Source:* <http://sci.tech-archive.net/Archive/sci.math/2006-02/msg00018.html>

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- *From:* "Chip Eastham" <[hardmath@xxxxxxxxxx](mailto:hardmath@xxxxxxxxxx)>
  - *Date:* 31 Jan 2006 15:15:36 -0800
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Shmuel (Seymour J.) Metz wrote:

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> In <1138647285.161615.119780@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>, on
> 01/30/2006
> at 10:54 AM, XleonardXcobetX@xxxxxxxxxx said:
>
> >I cannot seem to find a power of 2 divisible by 3.
>
> That's because you're working in  $\mathbb{Z}$ , the ring of integers. Try it in,
> e.g.,  $\mathbb{Z}/5$ , where  $2^3$  is 3 ( $8=3+5$ ).
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In  $\mathbb{Z}/5\mathbb{Z}$ , already 2 is divisible by 3. No need to raise to a power...

-- chip

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