There is a proposal to define Avogadro's constant as exactly 84446886 to the third power. (Fox, Ronald and Theodore Hill. "An Exact Value for Avogadro's Number." *American Scientist* 95 (2007): 104–107.) The proposed number in the article is actually $(84446888)^3$. In a subsequent addendum the authors reduced it to 84446886^3 to make the number divisible by 12. (See `www.physorg.com/news109595312.html`.) This number corresponds to an ideal cube of atoms with 84,446,886 atoms along each edge. Let us check the difference between the proposed value and the measured value of $(6.0221415 \pm 0.0000010) \times 10^{23}$ atoms.

```
A = 84446886^3
B = 6.0221415 10^23
A - B
```

-5.17173×10^{16}

Check the experimental error.

```
0.0000010 10^23
```

1×10^{17}

We see that the proposed value is within the experimental error.