# Name:………………………………………………..…. Date:………………………………………………………Nanochemistry

**The smallest thing…**

This table shows how scientists deal with very big numbers. Fill in the blank boxes in the table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Number** | **Written as a multiple of ten** | **Written as a power of ten** | **One way to say it** | **Another way to say it** |
| 10 | 10 | 10 | Ten | Ten |
| 100 | 10×10 | 102 | Ten squared | One Hundred |
| 1000 | 10×10×10 |  |  |  |
| 10 000 | 10×10×10×10 |  | Ten to the power of four |  |
| 1 000 000 | 10×10×10×10×10×10 |  |  |  |
| 1 000 000 000 | 10×10×10×10×10×10×10×10×10 |  |  | One Billion |
| 10 000 000 000 000 000 000 000 | 10×10×10×1010×10×10×10×10×1010×10×10×10×10×1010×10×10×10×10×10 |  |  | Ten Thousand Million Million Million |

**Did you know?**

* There are more stars in the sky than grains of sand on earth.
* The number of air molecules you breathe in, in one gulp, is about the same as all the stars in the Universe.

**Answers**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Number** | **Written as a multiple of ten** | **Written as a power of ten** | **One way to say it** | **Another way to say it** |
| 10 | 10 | 10 | Ten | Ten |
| 100 | 10×10 | 102 | Ten squared | One Hundred |
| 1000 | 10×10×10 | **103** | **Ten cubed** | **One Thousand** |
| 10 000 | 10×10×10×10 | **104** | Ten to the power of four | **Ten Thousand** |
| 1 000 000 | 10×10×10×10×10×10 | **106** | **Ten to the power of six** | **One Million** |
| 1 000 000 000 | 10×10×10×10×10×10×10×10×10 | **109** | **Ten to the power of nine** | One Billion |
| 10 000 000 000 000 000 000 000 | 10×10×10×1010×10×10×10×10×1010×10×10×10×10×1010×10×10×10×10×10 | **1022** | **Ten to the power of twenty-two** | Ten Thousand Million Million Million |