

After

In Friday's class, Danni showed us a cool way to compare numbers in scientific notation. Miss Cramer showed the class two ~~more~~ other ways to compare numbers. How are they all the same? Explain!

Problem: How many times bigger is 6×10^9 than 2×10^8 ? #

Danni's method

6 0 0 0 0 0 0 0 0 0 0
2 0 0 0 0 0 0 0 0 0 0

$$6 \div 2 = 3$$

this 0
is left over
so you add
it to the 3

30

6×10^9 is 30 times bigger
than 2×10^8

Miss Cramer's methods

$$1) \frac{6 \times 10^9}{2 \times 10^8} = \frac{6 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10}{2 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10}$$
$$= \frac{6}{2} \times 10 = 3 \times 10 = 30$$

$$2) \frac{6 \times 10^9}{2 \times 10^8} = \frac{6}{2} \times \frac{10^9}{10^8}$$
$$= 3 \times 10^{9-8}$$
$$= 3 \times 10^1$$
$$= 30$$