

CHEM 100
EXTRA Problems : scientific notation, pph (%), ppm, ppb

1. Express the following numbers in scientific notation:

1

10

100

1000

2. Convert the following concentrations that are expressed as a percent into parts per million (ppm):

1%

0.0035%

$8.5 \times 10^{-3}\%$

0.000054%

$5.4 \times 10^{-5}\%$

Would it be preferable to express any of the values that you just calculated as parts per *billion* instead of parts per *million*?

3. Convert the following concentrations that are expressed as **ppb** into a percent.

1 ppb

53 ppb

100.3 ppb