Warm Up

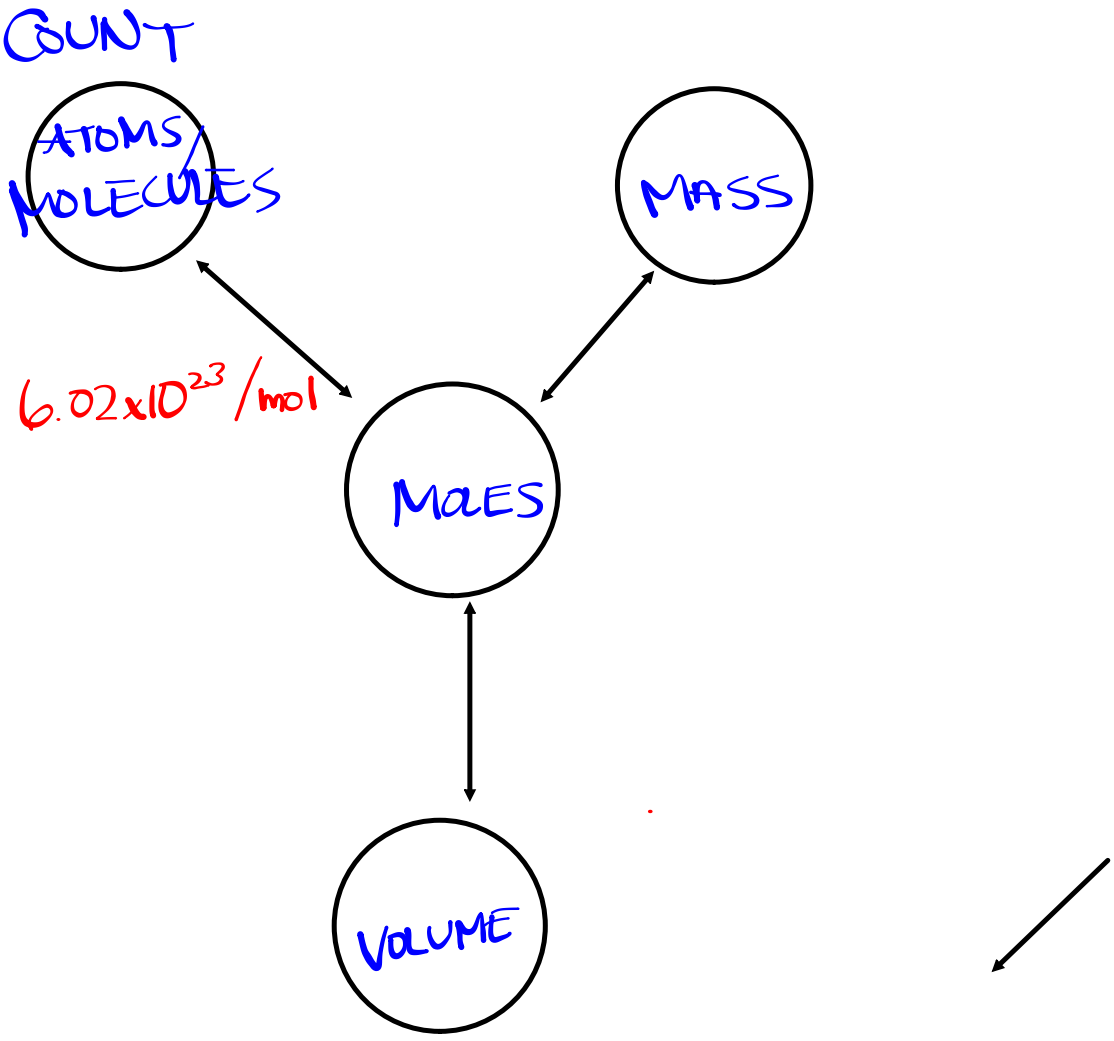
EXP EE

How many moles are in 2.14 x 10^{24} molecules of NO_2?

$$2.14 \times 10^{24} \text{ molecules } NO_2 \times \frac{1 \text{ mol } NO_2}{6.02 \times 10^{23} \text{ molecules } NO_2} = 3.55 \text{ mol } NO_2$$

How many atoms are in 12.8 moles of iron?

$$12.8 \text{ mol Fe} \times \frac{6.02 \times 10^{23} \text{ atoms Fe}}{1 \text{ mol Fe}} = 7.71 \times 10^{24} \text{ atoms Fe}$$


COUNT
ATOMS/
MOLECULES
MASS
6.02×10^{23} /mol
MOLES
VOLUME

How many atoms are in 6.08 moles of C_4H_8?

$$6.08 \text{ mol } C_4H_8 \times \frac{6.02 \times 10^{23} \text{ molecules } C_4H_8}{1 \text{ mol } C_4H_8} \times \frac{12 \text{ atoms}}{1 \text{ molecules } C_4H_8}$$

$$= 4.39 \times 10^{25} \text{ atoms}$$

#3-6 p. 291-292

Homework

Worksheet - Molar Calculations