Pg. 198 Formula-Based Problems 8.2

Molecular mass = atomic mass of all atoms in a molecule added up.

H_2O ⇒ 1+1+16 = 18 amu

Formula Mass = (ionic subst. do not exist as molecules) yet concept is the same

NaCl ⇒ 23 + 35.5 = 58.5 amu

OH^- ⇒ 16+1 = 17 amu

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NOTE: Chemists do not figure out how much of something by counting.

↳ find a relationship betwn. mass & # particles.

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Relationship between masses & # particles

- 1 atom He = 4 amu } 2:7
- 1 atom N = 14 amu }
- 2 atoms He = 2×4 = 8 } 2:7
  2 atoms N = 2×14 = 28 }

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- In Lab unit for mass = grams, deliberately found # of atoms for 1 g = 1 amu

Called: Avogadro's Constant

$6.02 \cdot 10^{23}$

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gram (g)

This # of things called mole (mol)

↳ one mole of particles (atoms, ions, molecules) has a mass in grams = to that of amu

HW: 202-203
34-37

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