

Success 24/7: What is a Mole?

Mole: a measure of the amount of a substance.

Dozen vs. Avogadro's Number:

602,000,000,000,000,000,000

How big is that???

- Avogadro's number of paperclips would stretch along the diameter of the Milky Way 20 times.
- The Earth's oceans could be filled 30 million times over with Avogadro's number of eggs.

Some terms you need to know:

Atom - a single element

Molecule – a compound that contains nonmetals ONLY

Formula Unit – a compound that contains a metal and a nonmetal

Atom, mlc, or fu? Ex:

H₂O₂ _____

Al₂S₃ _____

O₂ _____

Ca _____

Be(OH)₂ _____

1 mol = 6.02×10^{23} representative particles

Diatomic Elements:

Elements that exist in nature as pairs OR in compounds. They will not be by themselves.

Periodic Table of the Elements

																		Atomic number — 14	
																		Symbol — Si	
																		Atomic mass — 28.086	
																		Period — 3	
																		Group — 14	
																		Name — Silicon	

1	1																		18
2	2																		10
3	3																		18
4	4																		18
5	5																		18
6	6																		18
7	7																		18

58	59	60	61	62	63	64	65	66	67	68	69	70	71
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb
72	73	74	75	76	77	78	79	80	81	82	83	84	85
Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr

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Warning: If you have a question that mentions chlorine only, be sure to write Cl2 NOT Cl!