
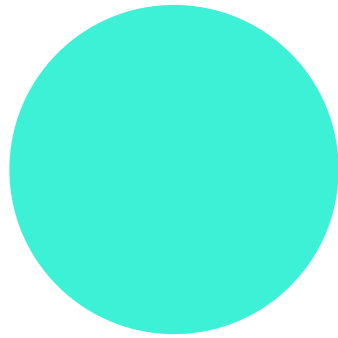


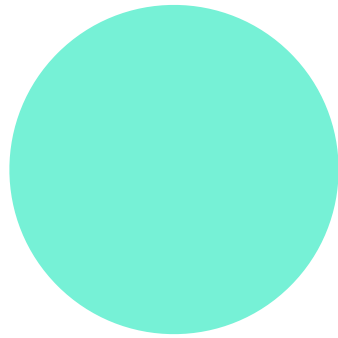
THE MOLE


for 
babies 

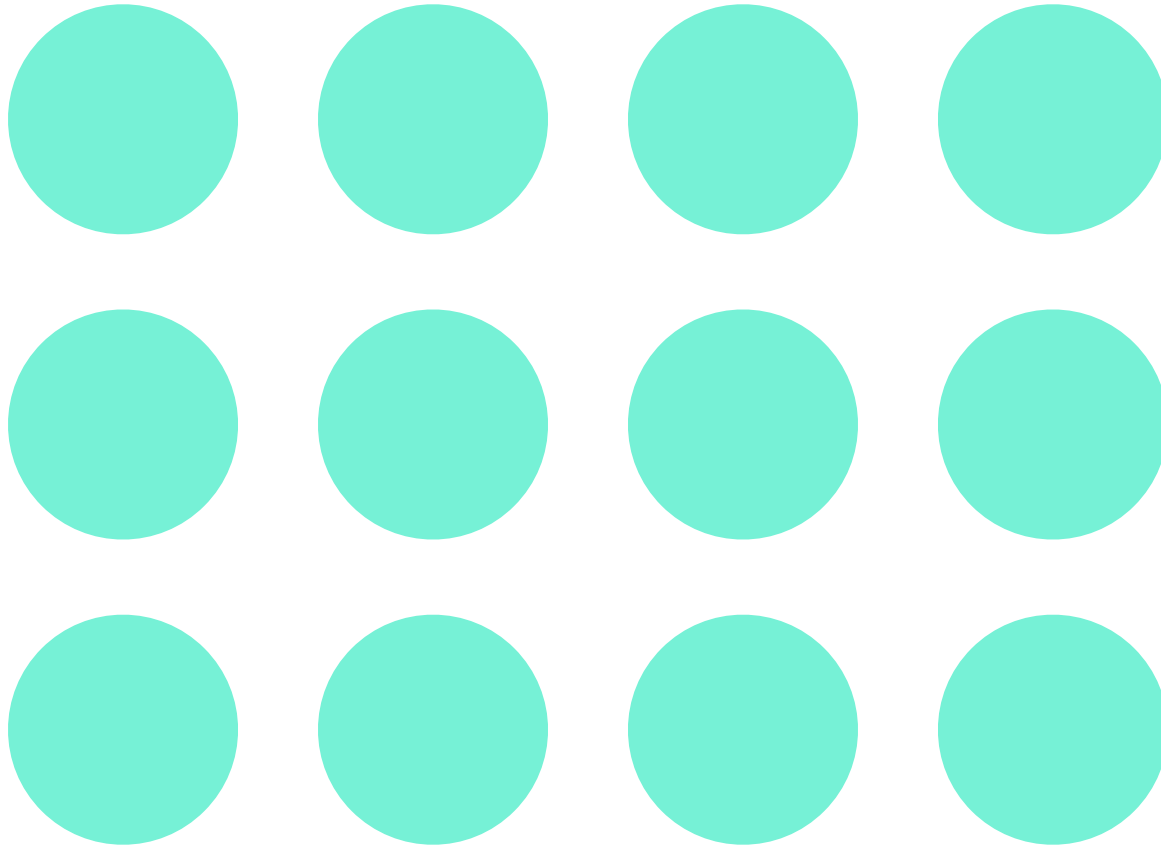
Ms. Wahl



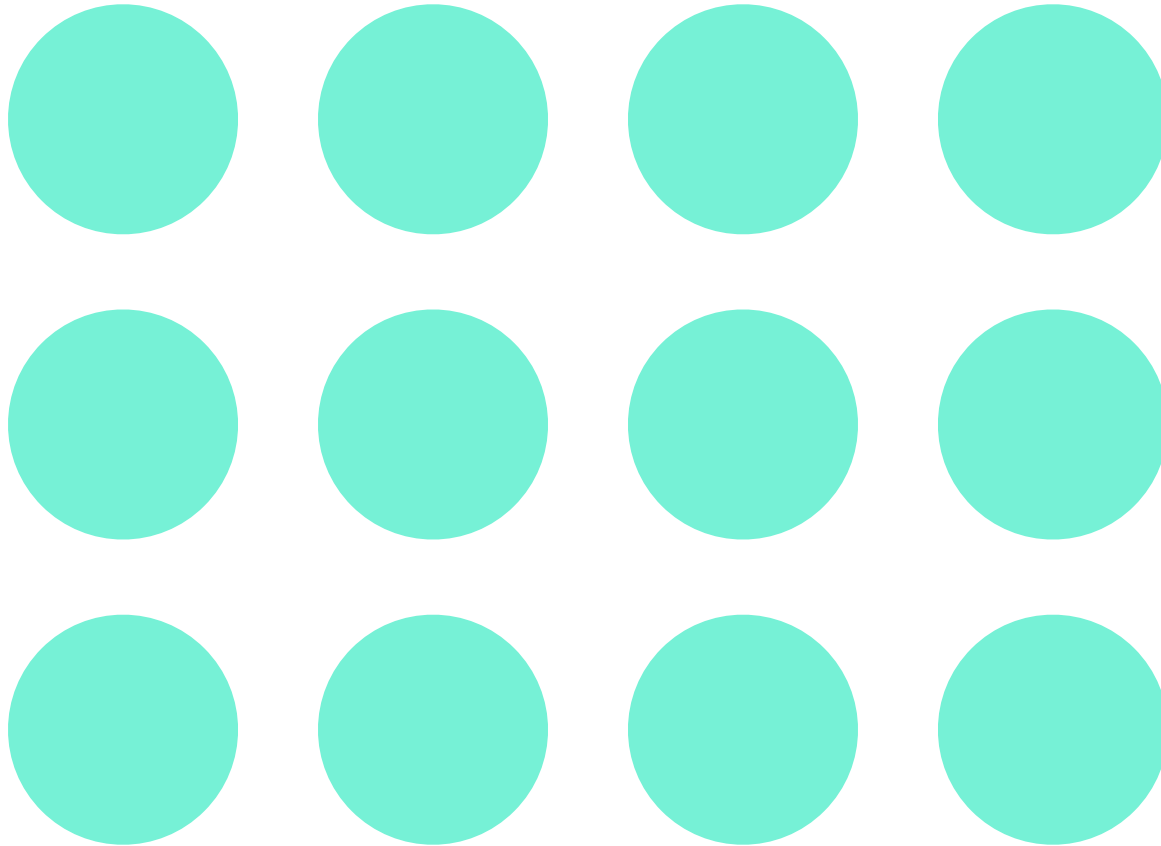
This is a ball.



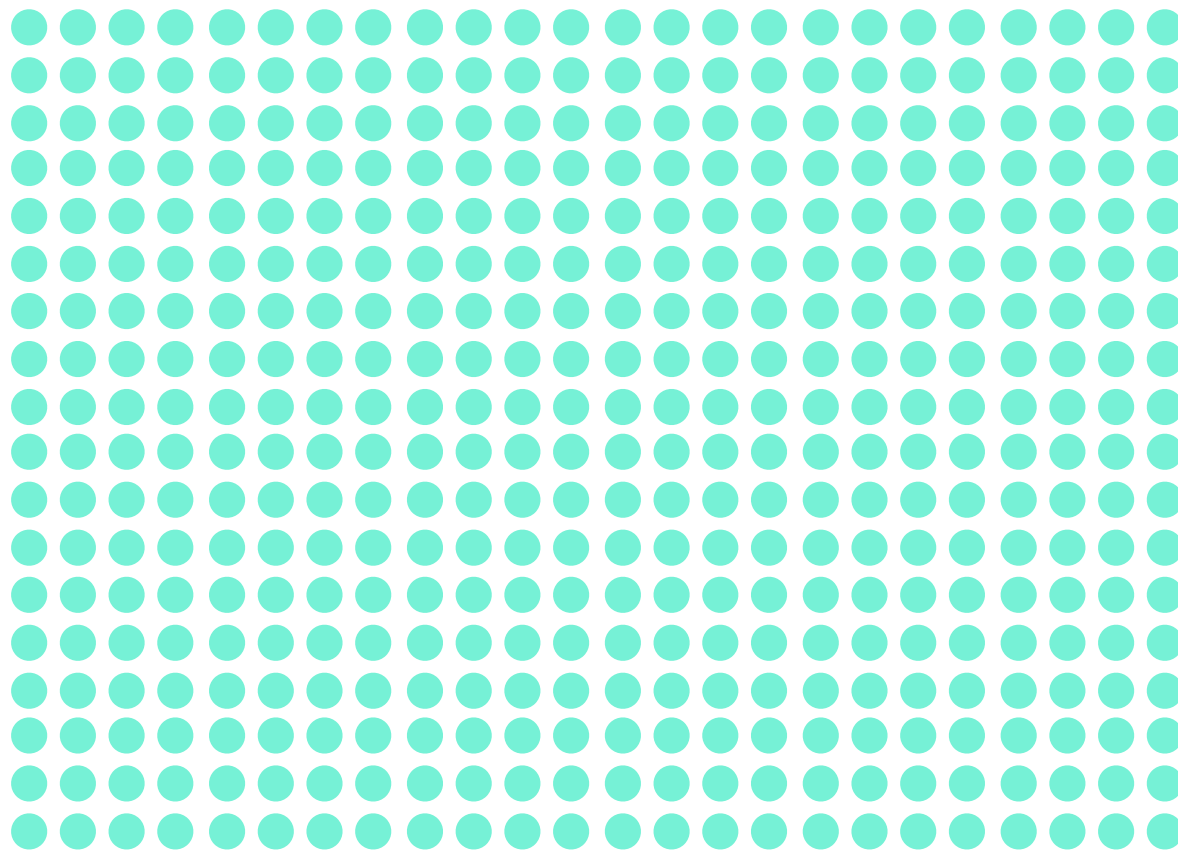
This ball is like an atom.



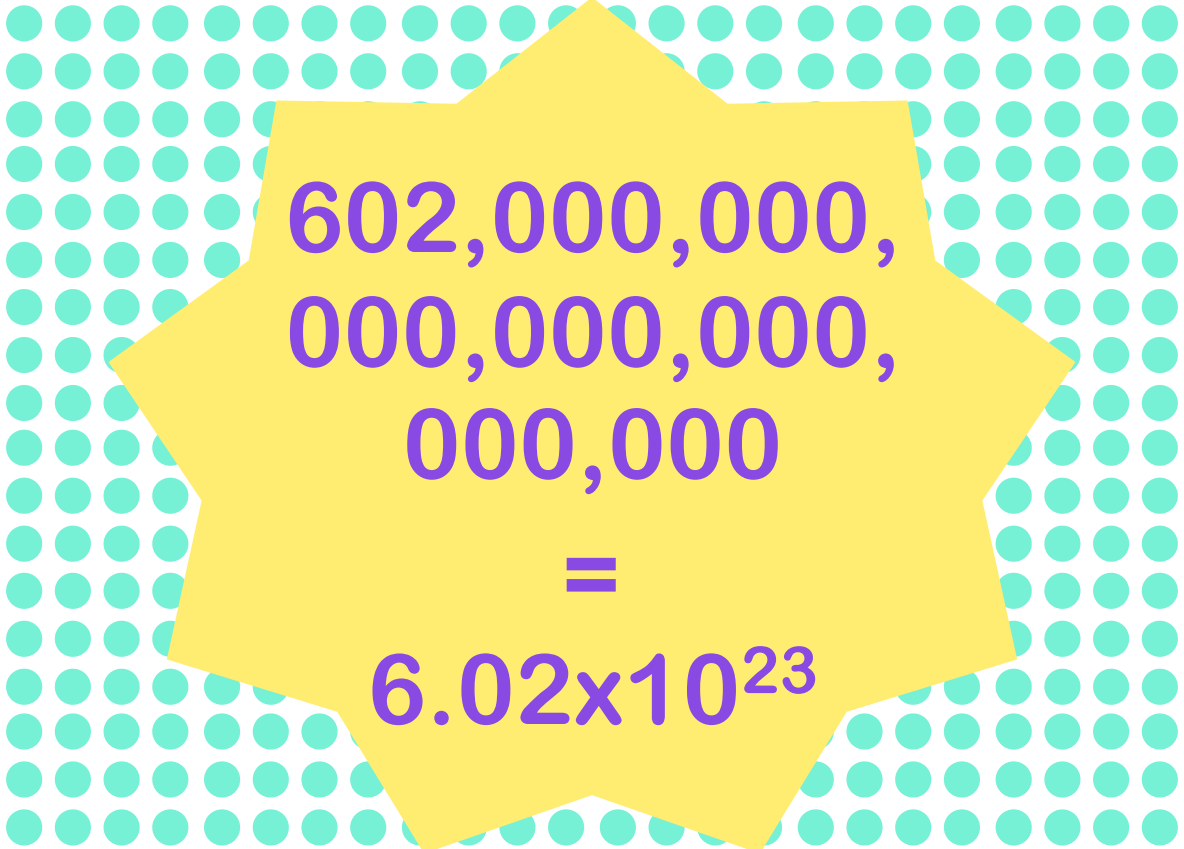
Here are twelve **atoms.**



**Twelve atoms is equal to
one dozen atoms.**



Here are lots of **atoms**.



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

=

6.02×10^{23}

If there were 6.02×10^{23} atoms,
there would be one mole of atoms.

1	2	3
4	5	6
7	8	9
10	11	12

Mole is just like “**pair**” or “**dozen,**”

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

but much bigger.



One **mole** of basketballs would
make a sphere the size of Earth.



One **mole** of carbon **atoms** would
have a mass of 12.01 grams.

Carbon

6

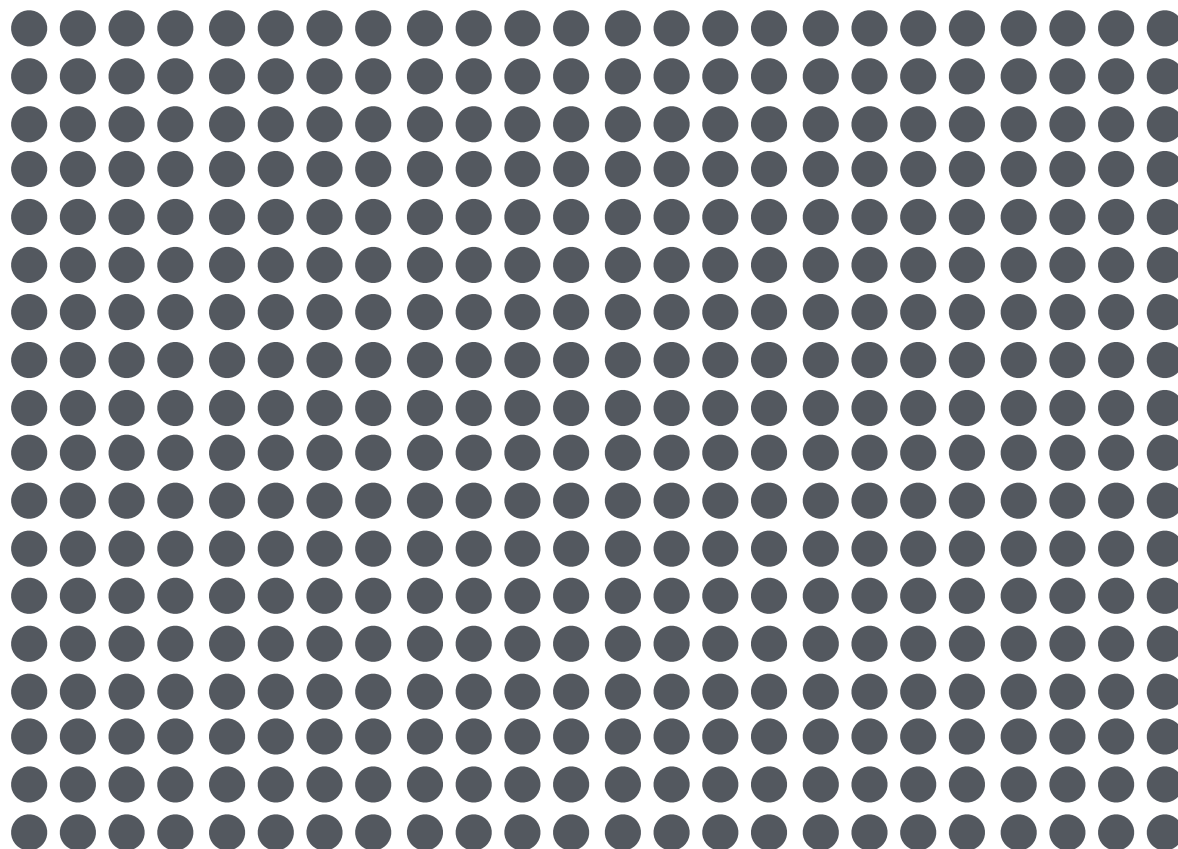
C

12.01

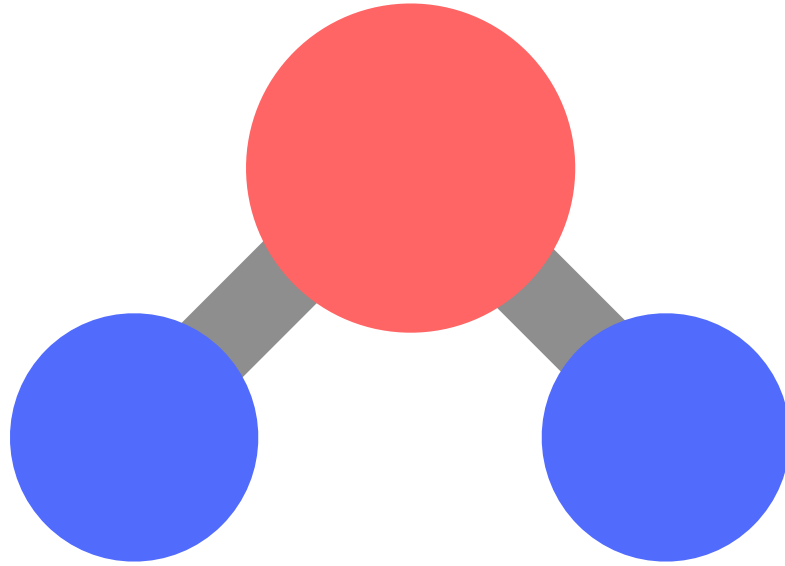
**12.01 grams per mole is
carbon's molar mass.**



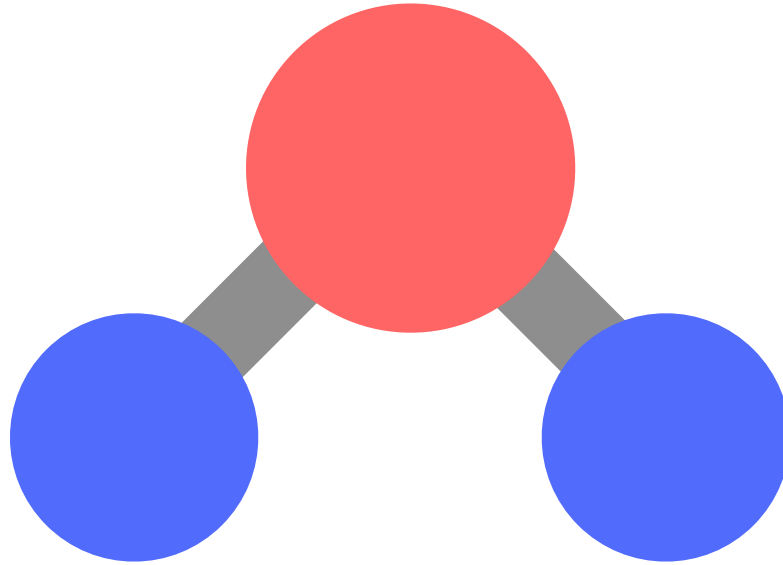
A single carbon **atom** has a mass of 12.01 atomic mass units.



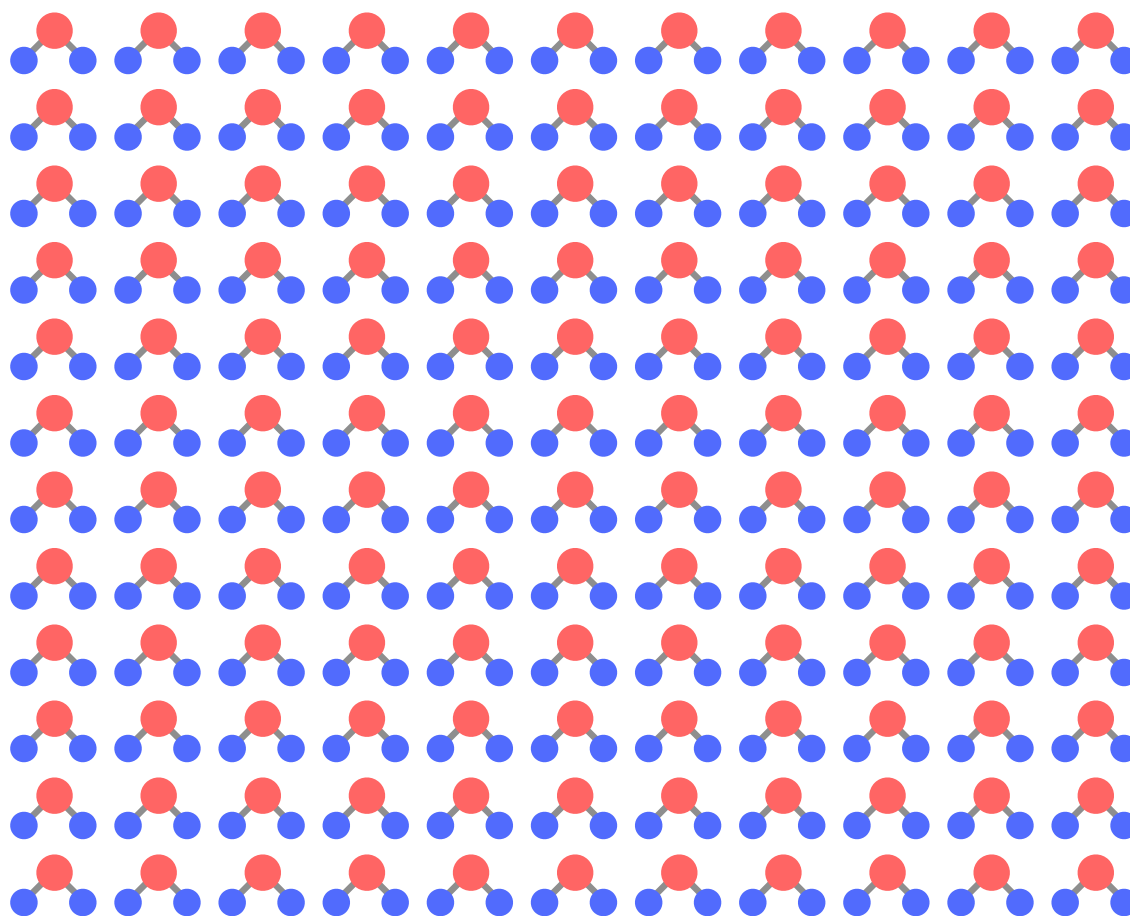
A **mole** of carbon **atoms** has a mass of 12.01 grams.



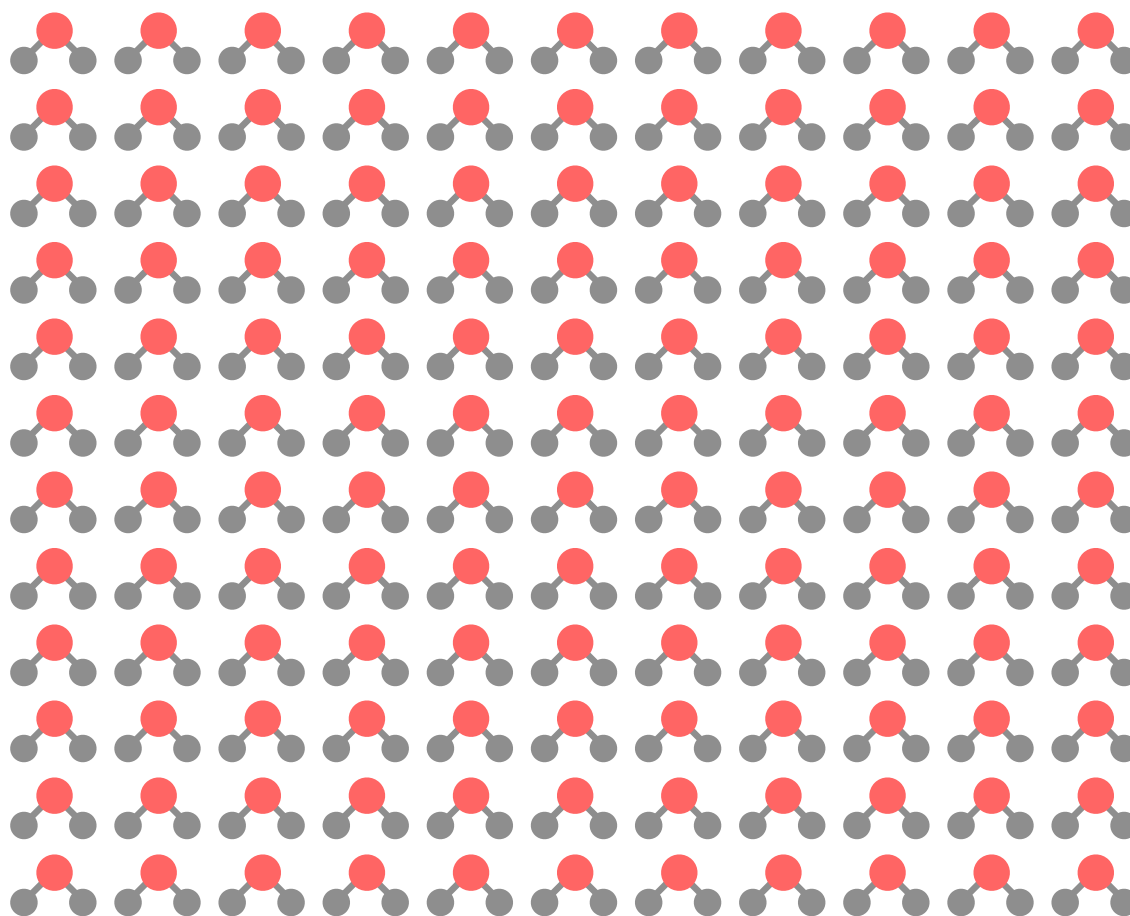
Atoms can be combined to make
molecules.



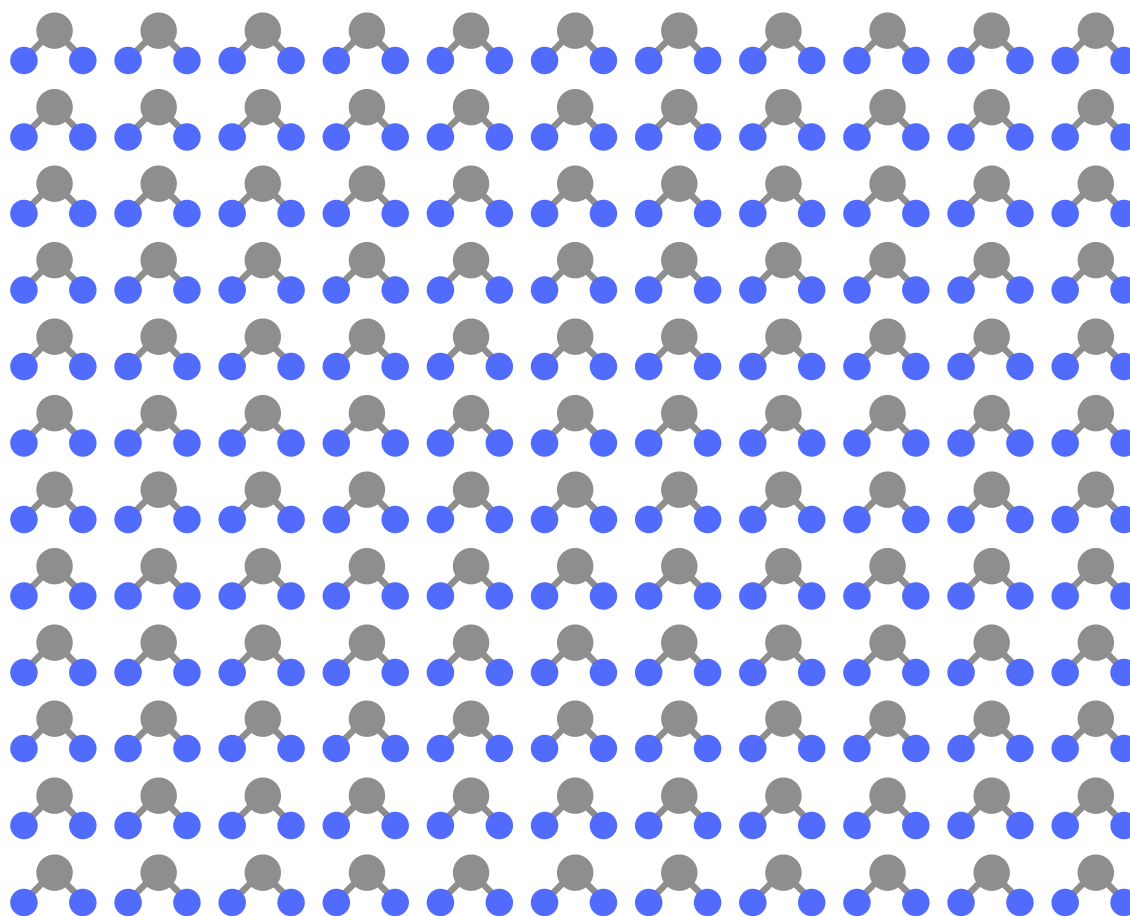
This molecule has one red atom
and two blue atoms.



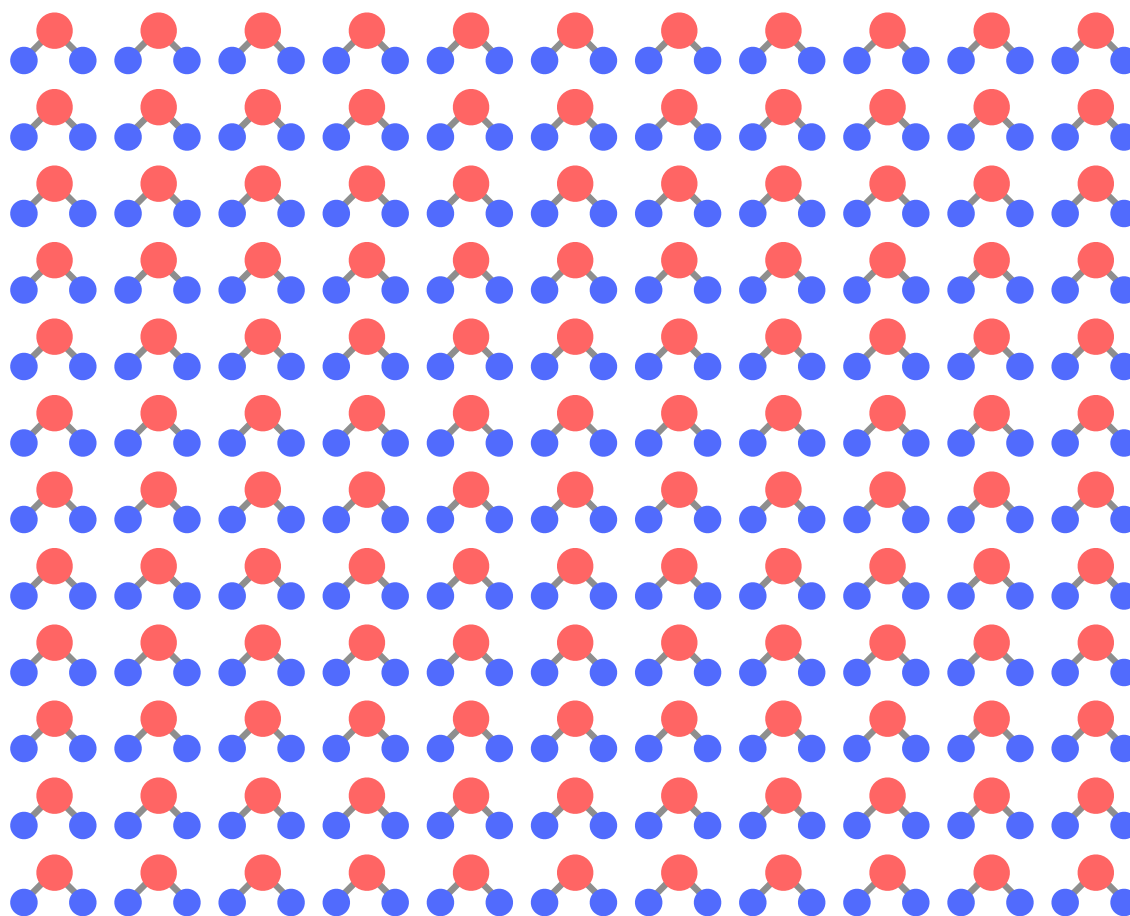
One mole of these molecules
would contain...



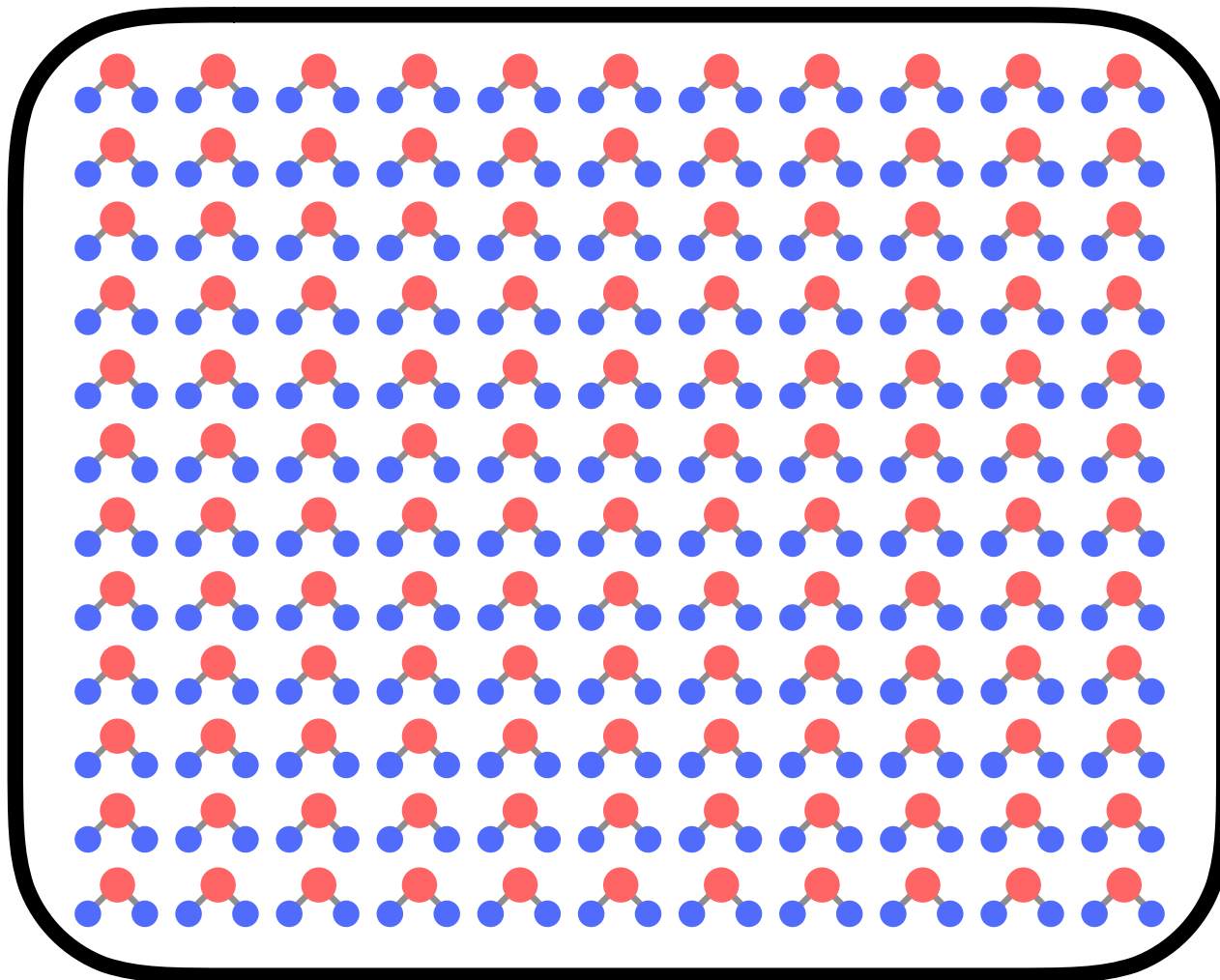
one mole of red atoms...



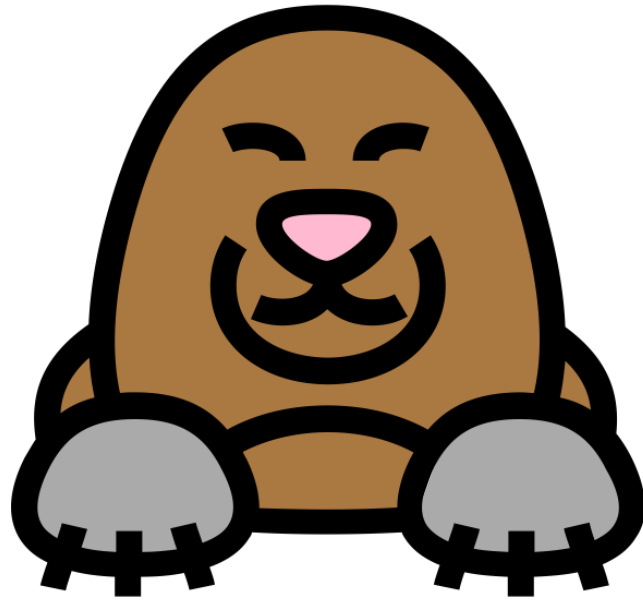
and two moles of blue atoms.



In total, there would be three
moles of atoms...



In one mole of these molecules.



Now you are a
MOLE EXPERT!