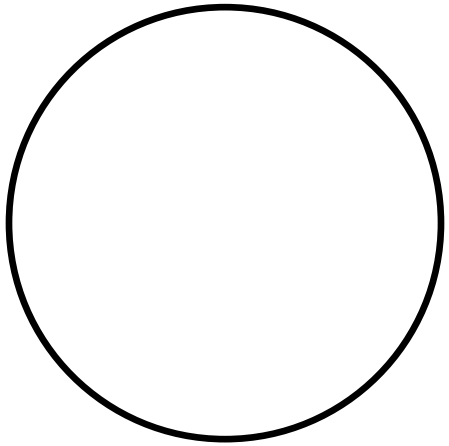
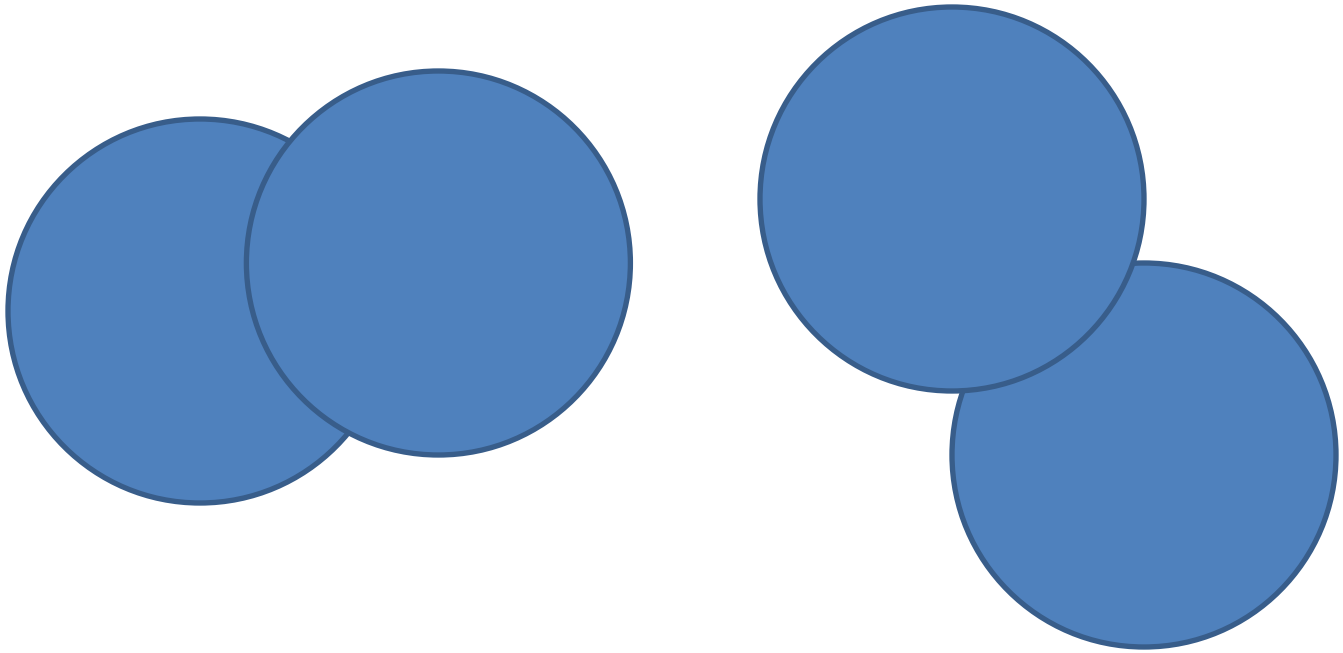
Atoms, Molecules, Elements and Compounds

An atom is the smallest unit of matter.

This is represented on your homework by a circle.



Counting the number of atoms on your homework is easy! Just count how many circles!



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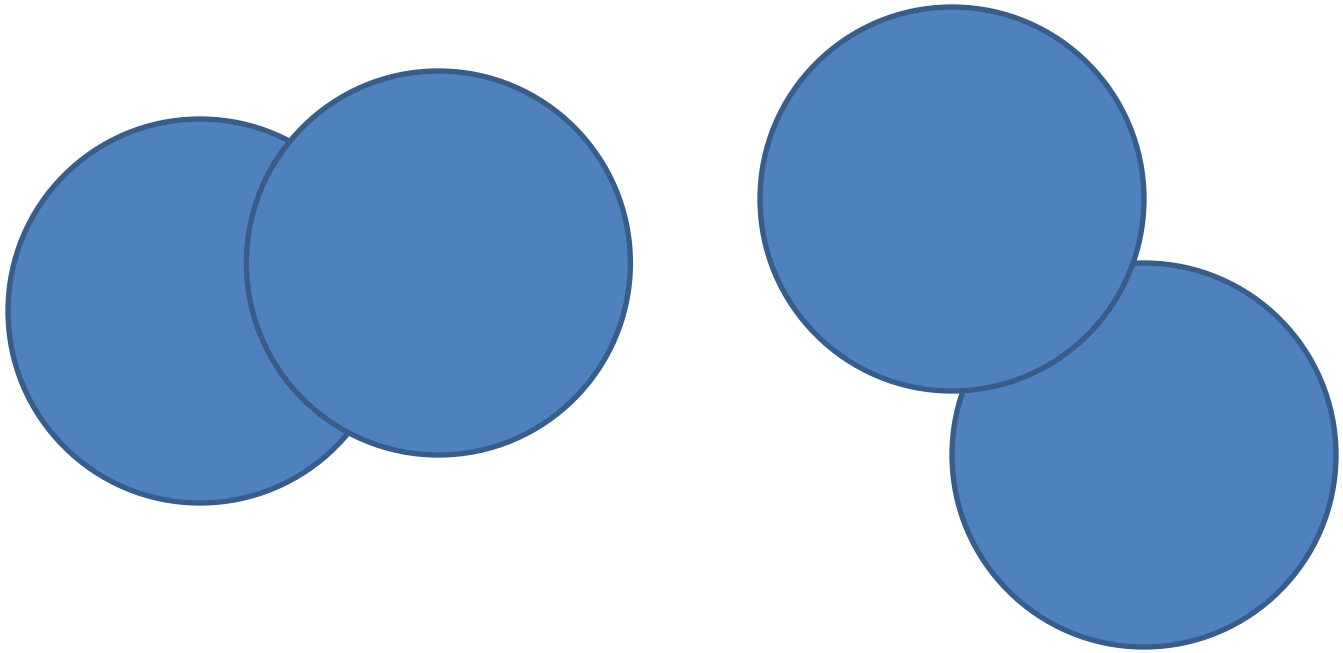
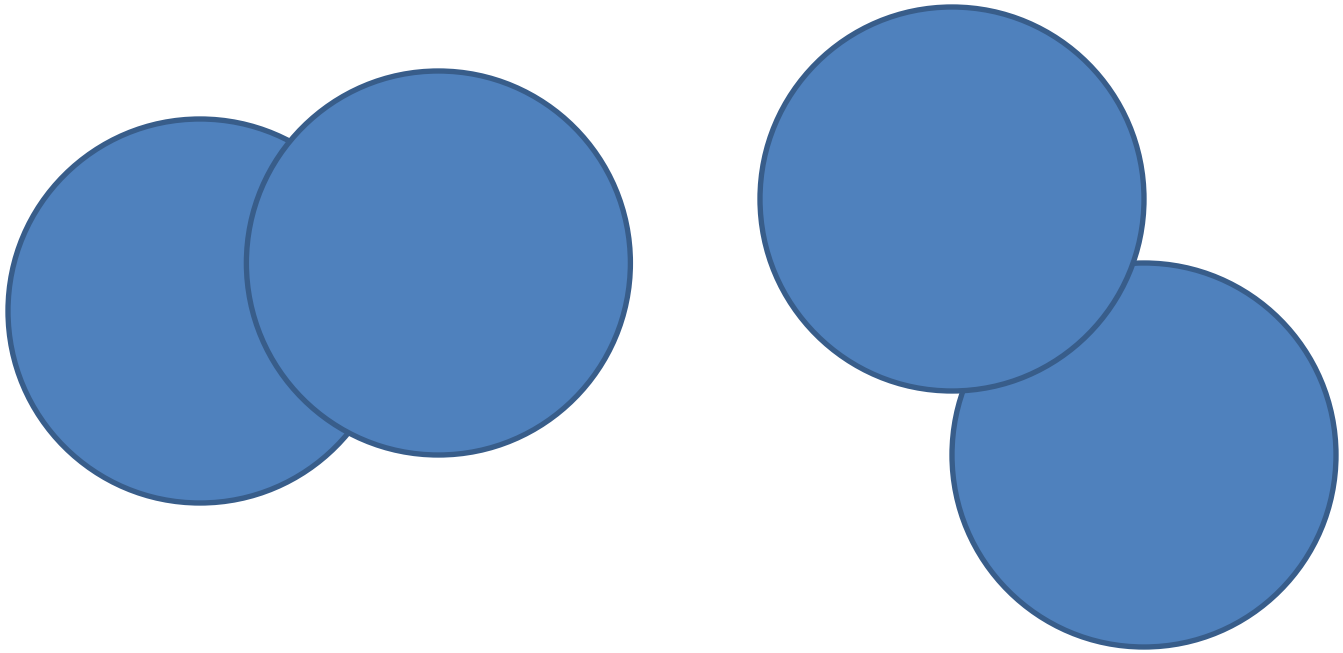


How many atoms are in this example?

Counting the number of atoms on your homework is easy! Just count how many circles!



There are 4 atoms in this example

Each element has an atom that is completely unique.

How do we determine what element an atom is? (Hint: it's a subatomic particle.)

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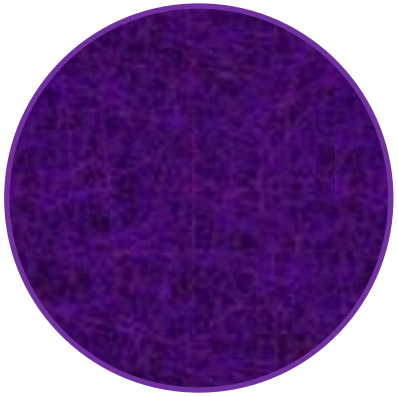
How do we determine what element an atom is? (Hint: it's a subatomic particle.)

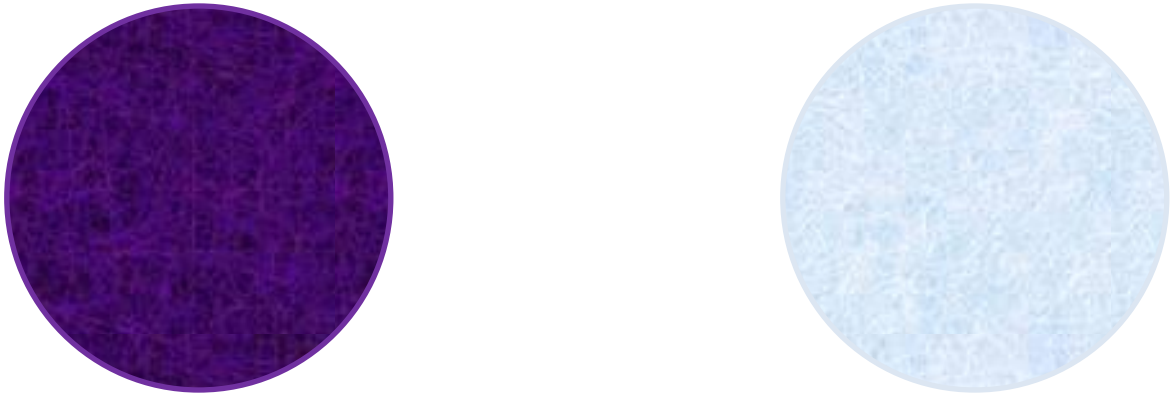
The number of protons!

Your homework shows each element as unique by using a different pattern to fill in the circle (or atom.)



There are two different elements in this example.
How many atoms are there?

Your homework shows each element as unique by using a different pattern to fill in the circle (or atom.)



There are two different elements in this example.
How many atoms are there?
2

Count the number of atoms and elements in this example:

How many atoms?

How many elements?

Count the number of atoms and elements in this example:

How many atoms? 4

How many elements?

Count the number of atoms and elements in this example:

How many atoms? 4

How many elements? 2

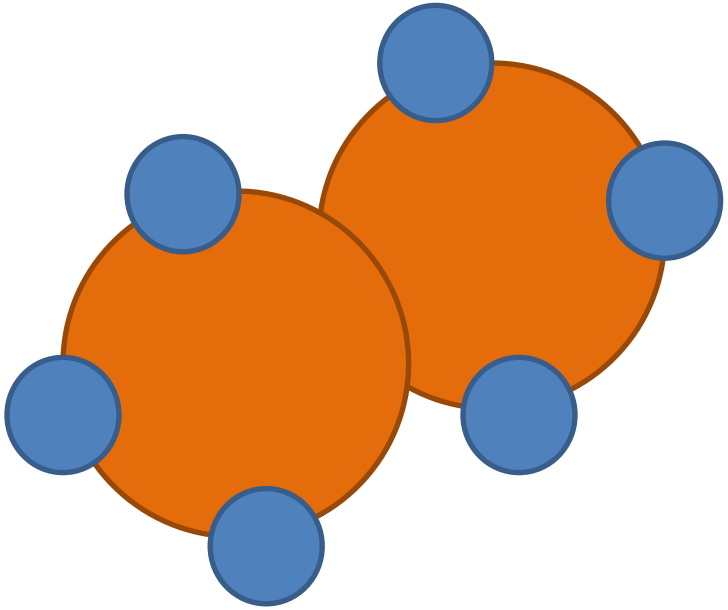
If you recall, a molecule is a group of 2 or more atoms. **Any atoms!**

Is this a molecule?

If you recall, a molecule is a group of 2 or more atoms. **Any atoms!**

Is this a molecule?

No, because it is only one atom.

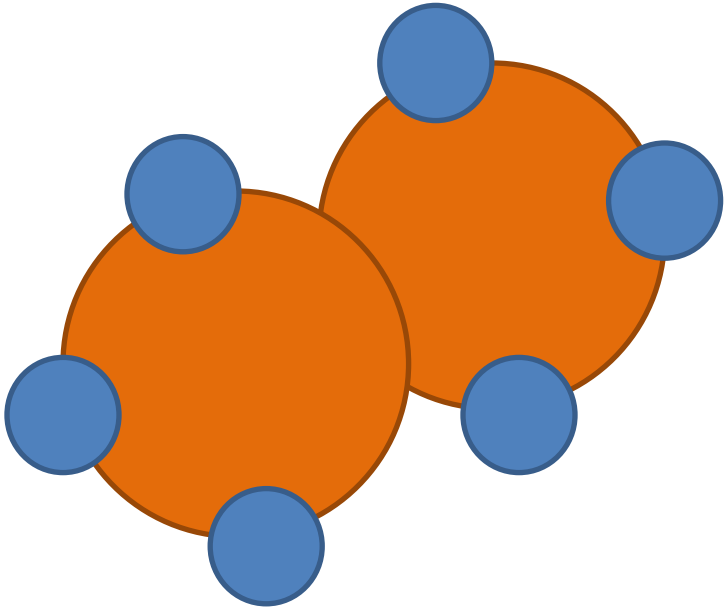


How many…

How many atoms?

How many elements?

How many molecules?

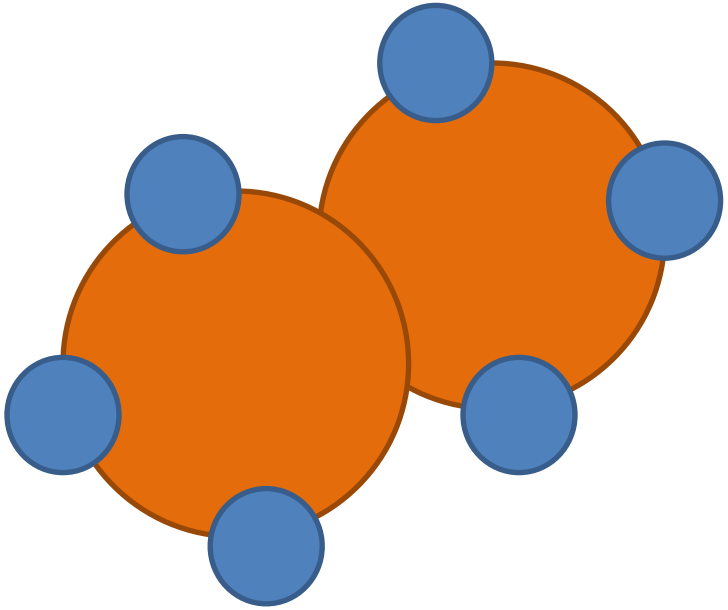


How many…

How many atoms? 8

How many elements?

How many molecules?



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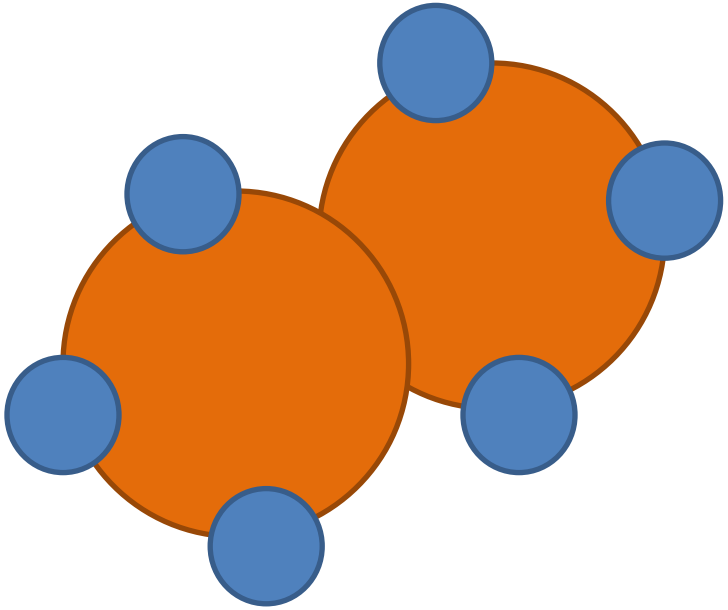
How many elements? 2

How many molecules?

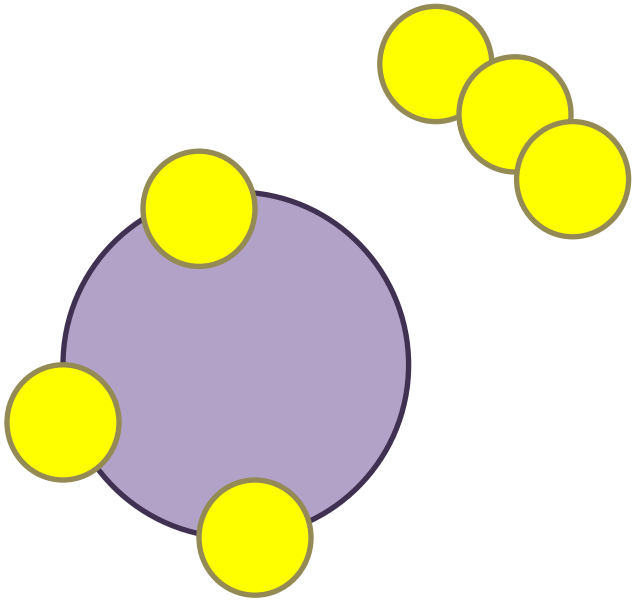


How many…

How many atoms? 8

How many elements? 2

How many molecules? 1

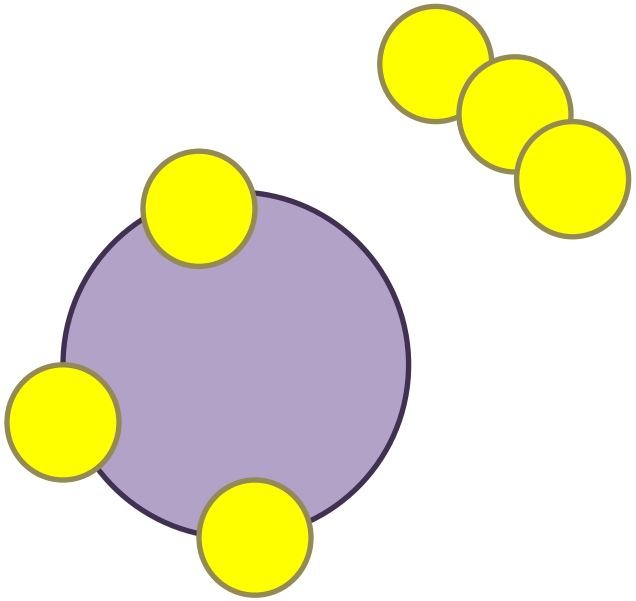


How many…

How many atoms?

How many elements?

How many molecules?

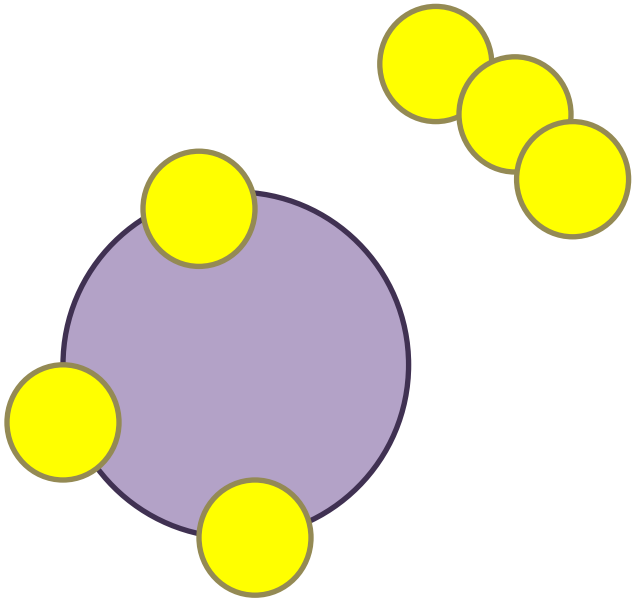


How many…

How many atoms? 7

How many elements?

How many molecules?



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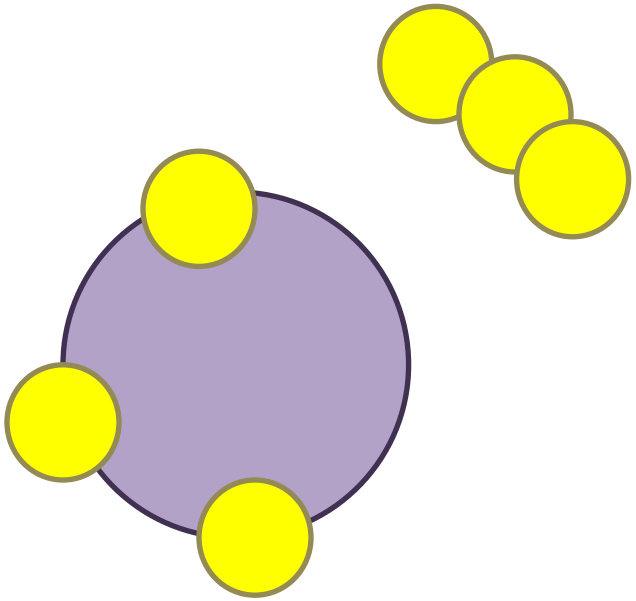
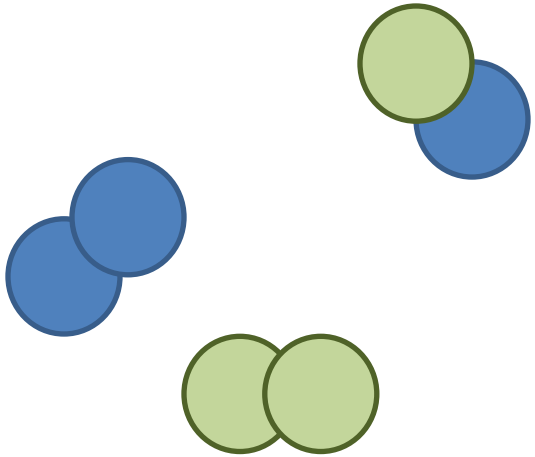


How many…

How many atoms? 7

How many elements? 2

How many molecules? 2



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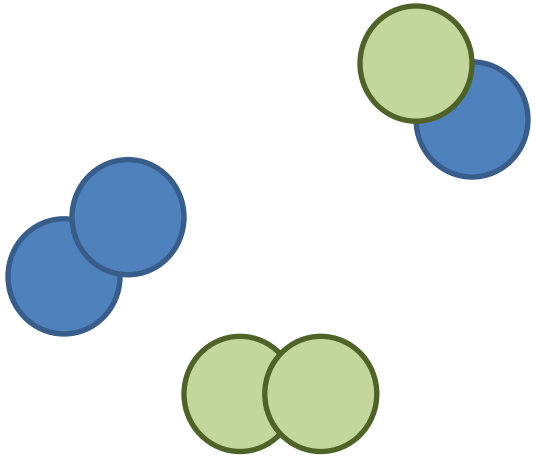
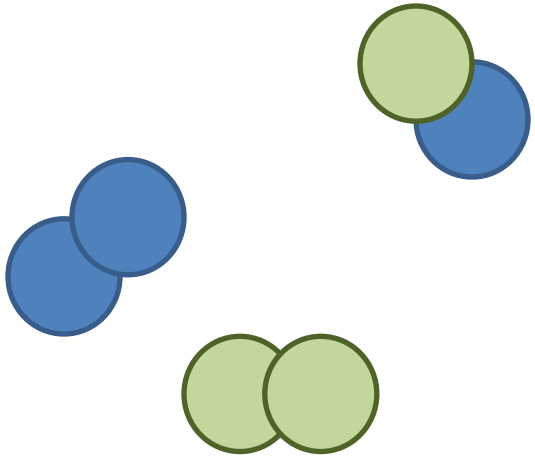


How many…

How many atoms? 6

How many elements?

How many molecules?



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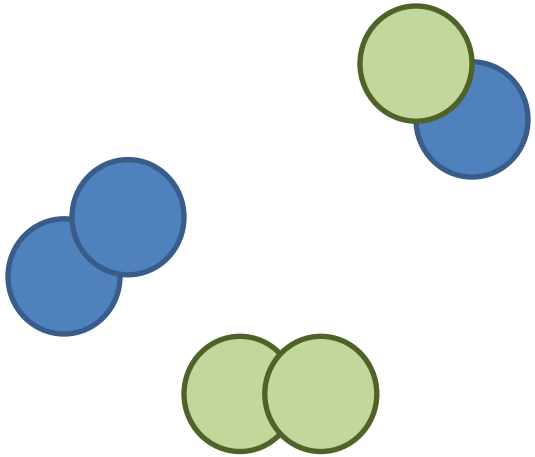


How many…

How many atoms? 6

How many elements? 2

How many molecules? 3

Now, what about compounds?

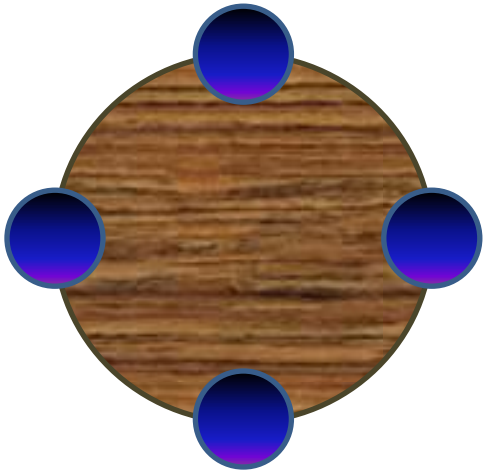
Now, what about compounds?

Compounds are any group of atoms (or molecule) that has more than one type of atom.

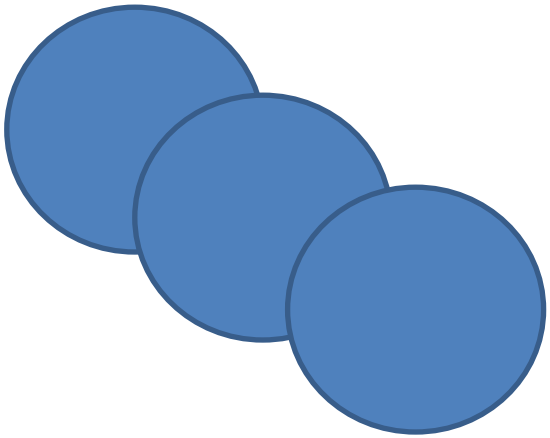
Which one is a compound?

A, B, or Both?

A



B



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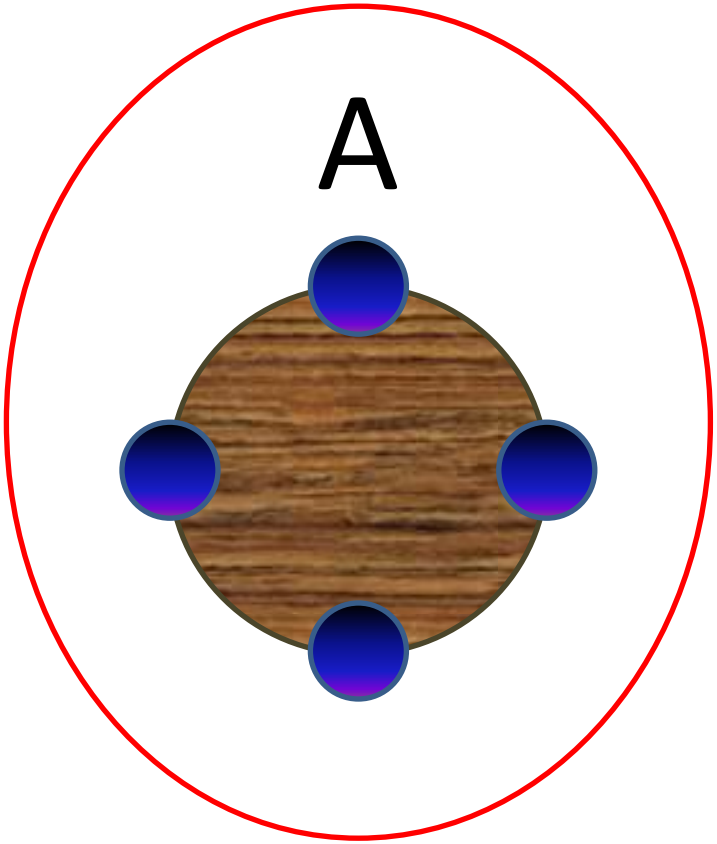

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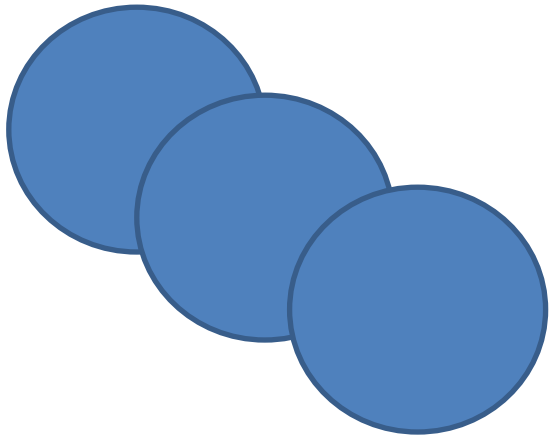

Which one is a molecule?

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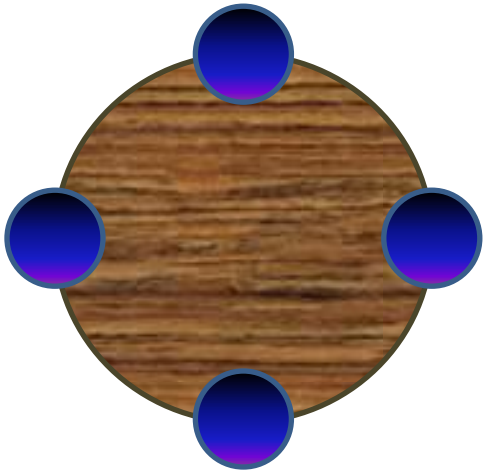

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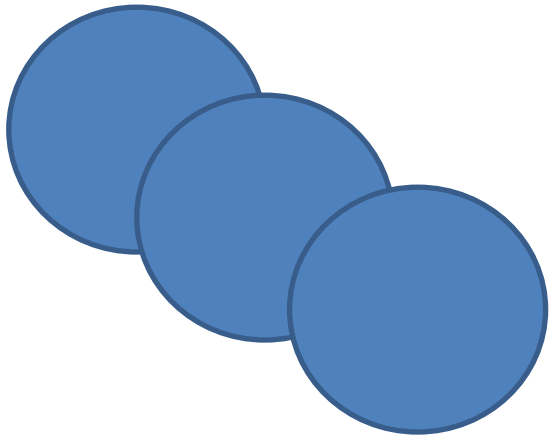
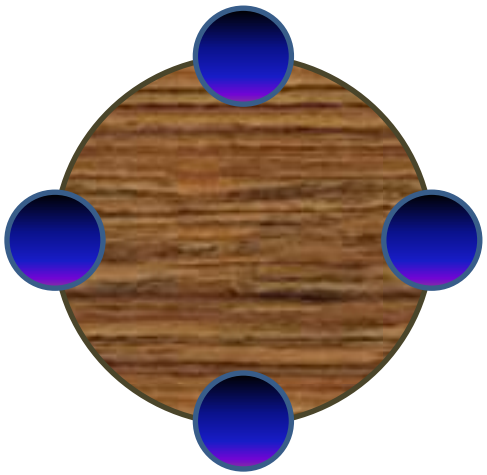


Which one is a molecule?

A, B, or Both?

A



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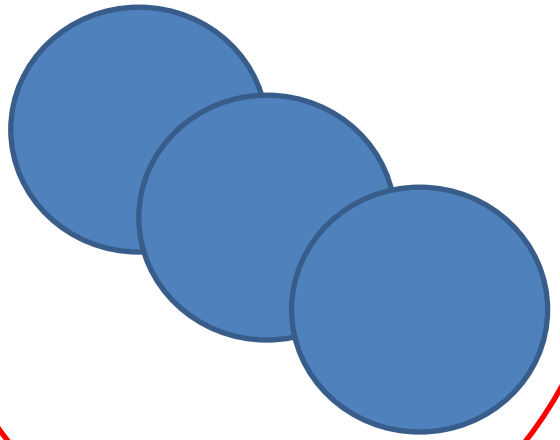

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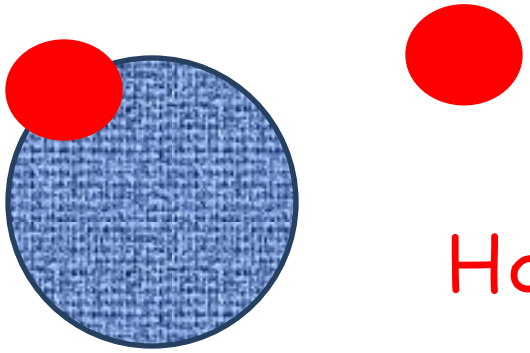


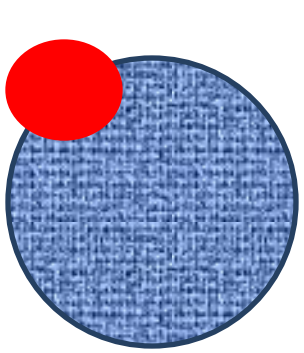
How many atoms?

How many elements?

How many molecules?

How many compounds?

Let's try some examples...



How many atoms? 3

How many elements?

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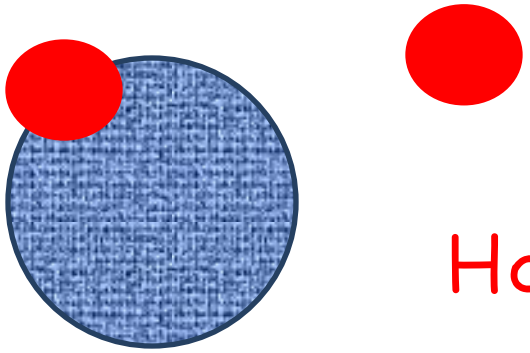

How many atoms? 3

How many elements? 2

How many molecules?

How many compounds?

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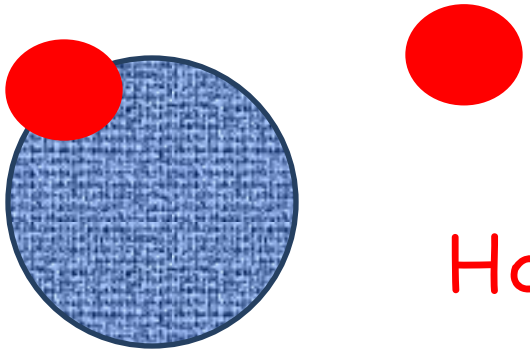

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How many compounds?

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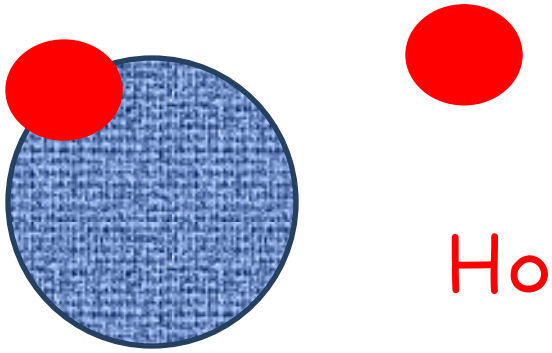

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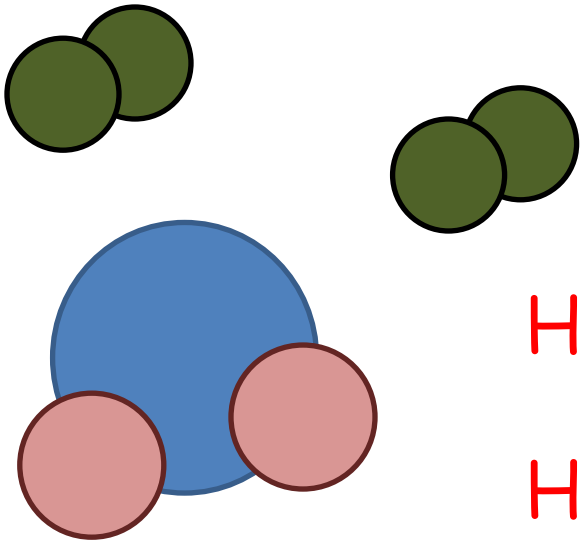

How many atoms?

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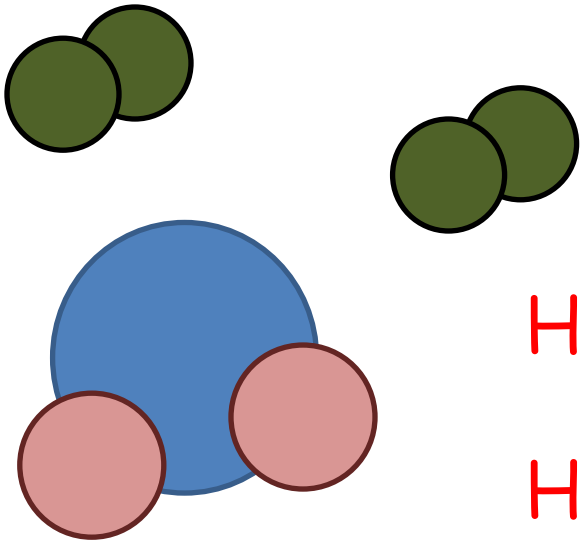

How many atoms? 7

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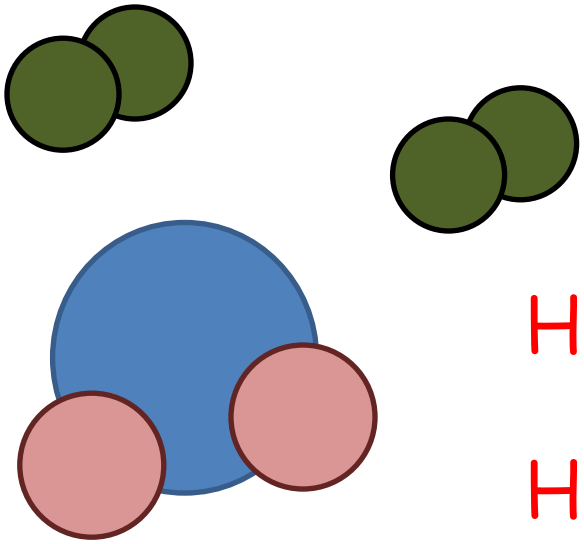

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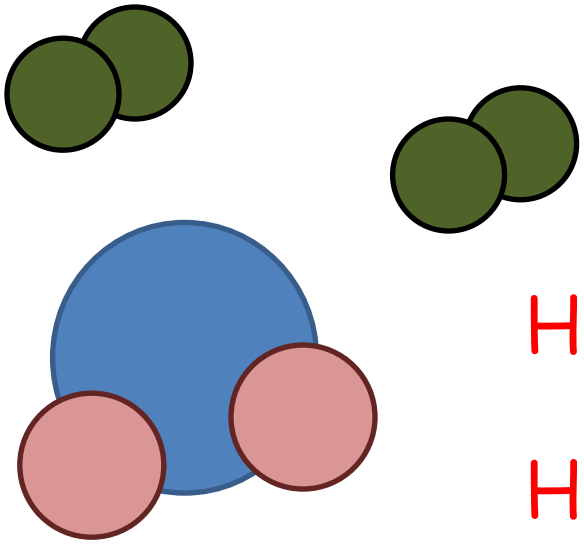

How many atoms? 7

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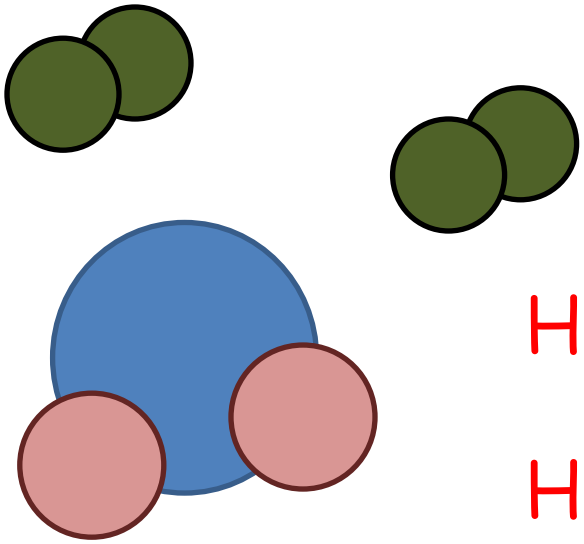
How many molecules? 3

How many compounds?

Let's try some examples...



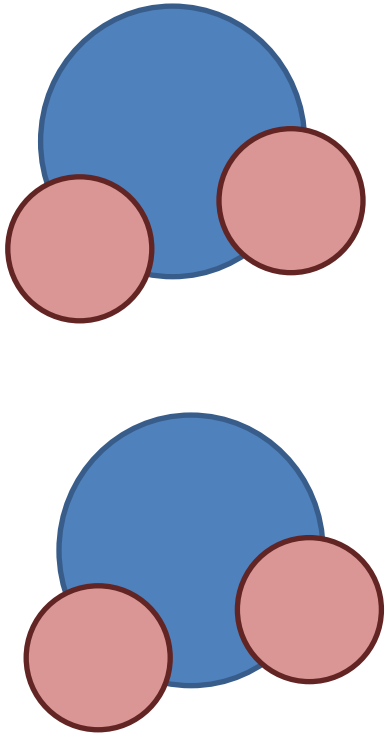
How many atoms? 7

How many elements? 3

How many molecules? 3

How many compounds? 1

Let's try some examples...



How many atoms?

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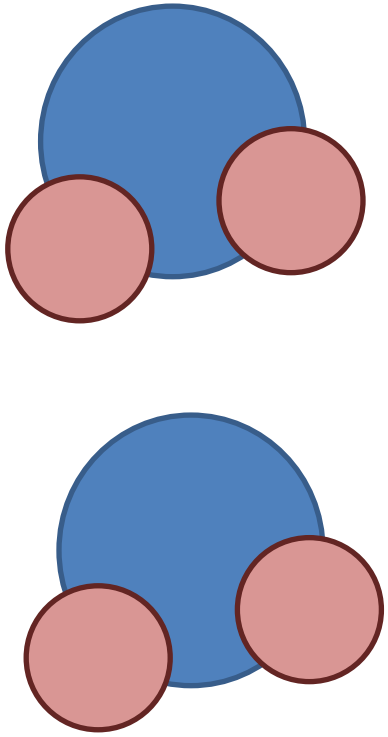
How many compounds?

Let's try some examples...



How many atoms? 6

How many elements?

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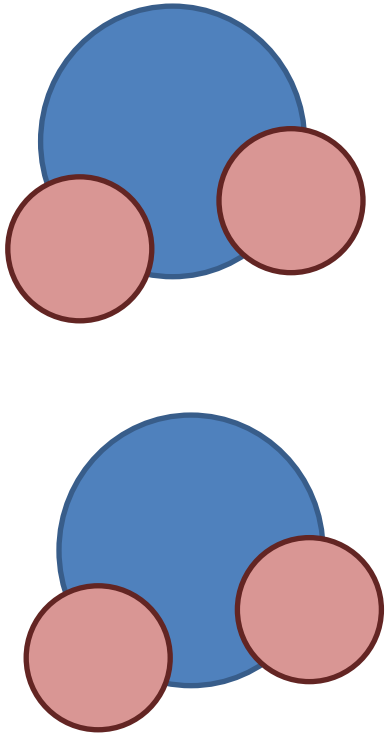
Let's try some examples...



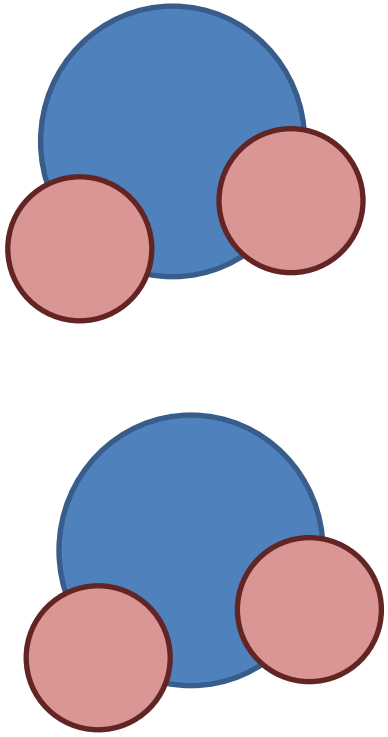
How many atoms? 6

How many elements? 2

How many molecules?

How many compounds?

Let's try some examples...



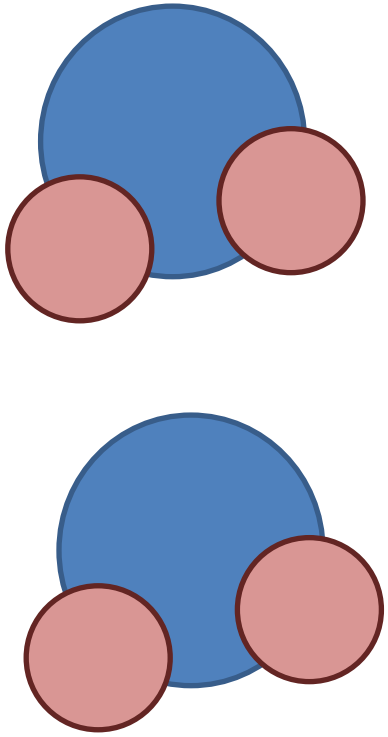
How many atoms? 6

How many elements? 2

How many molecules? 2

How many compounds?

Let's try some examples...



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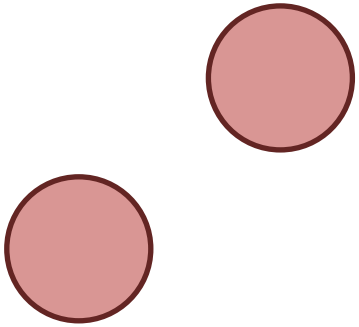

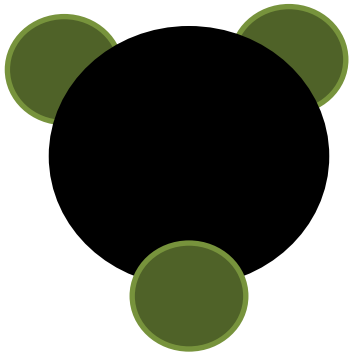

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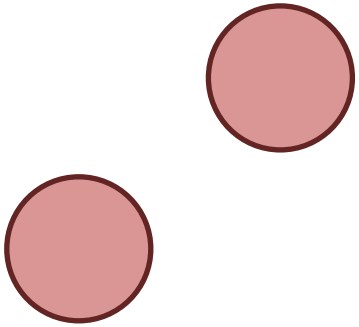

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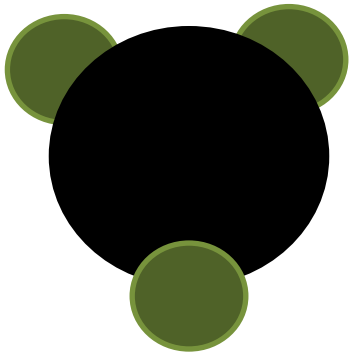

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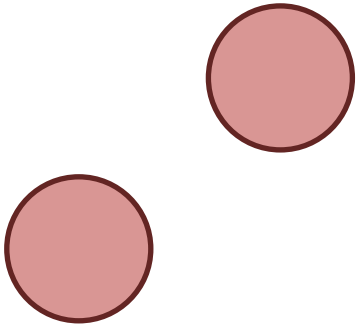

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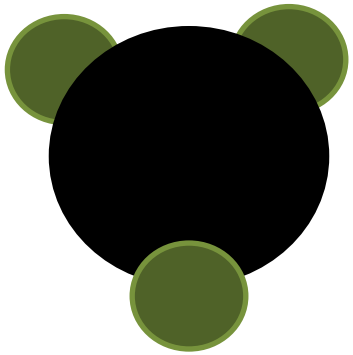
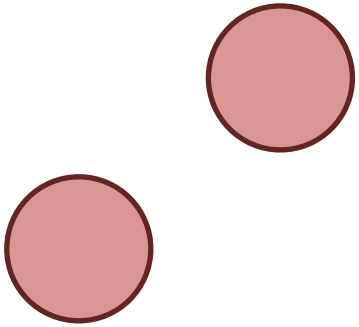


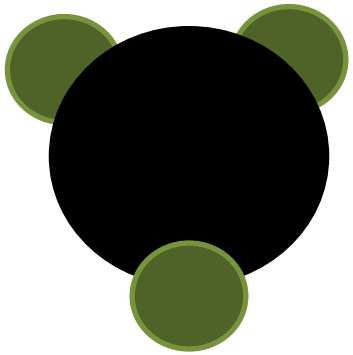
How many elements? 3

How many molecules?

How many compounds?

Let's try some examples...





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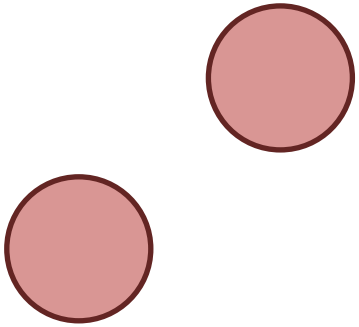

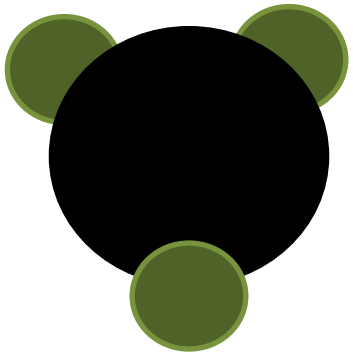

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How many elements? 3

How many molecules? 1

How many compounds? 1