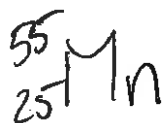


1. Complete the following table

Name	Symbol Notation	Atomic Number	Mass Number	Electrons	Neutrons
Sodium	$^{23}_{11}\text{Na}$	11	23		
Nitrogen	$^{14}_7\text{N}$	7	14	7	7
		7	14		
Lithium	^7_3Li	3	9	3	6
Boron	$^{11}_5\text{B}$	5	11	5	6
Lead	$^{206}_{82}\text{Pb}$	82	206	82	124
Nitrogen	$^{13}_7\text{N}$	7	13	7	6
Iron	$^{57}_{26}\text{Fe}$	26	57	26	31
Calcium	$^{40}_{20}\text{Ca}$	20	40	20	20
Francium	$^{223}_{87}\text{Fr}$	87	223	87	136
Strontium	$^{88}_{38}\text{Sr}$	38	88	38	50
Beryllium	^9_4Be	4	9	5	4
Magnesium	$^{24}_{12}\text{Mg}$	12	24	12	12
Arsenic	$^{75}_{33}\text{As}$	33	75	33	42

2. Write a symbol notation for the element manganese.



3. Write the symbol notation for three isotopes of carbon: carbon-12, carbon-13 and carbon-14.



4. Draw the Bohr model for fluorine:



Explain why fluorine isn't "happy" with this configuration and what it would like to have instead.

it is missing one e^- from its outer shell & wants to add one which would make it an anion with a 1- charge.

How will fluorine achieve this?

add one e^-

What charge will it become in order to achieve the desired configuration?

-1

5. Using the periodic table, indicate the charge for the following elements when they become charged:

Calcium	+2
Fluorine	-1
Iodine	-1
Magnesium	+2
Sodium	+1
Potassium	+1
Aluminum	+3
oxygen	-2

6. The term for a positively charged ion is cation.

7. The term for a negatively charged ion is anion.

8. Complete the following table:

Symbol Notation	Atomic Number	Mass number	Neutrons	Protons	Electrons	Charge
$^{132}_{54}\text{Xe}^{+6}$	54	132	78	54	48	+6
$^{198}_{79}\text{Au}^{+1}$	79	198	119	79	78	+1
$^1_1\text{H}^{+1}$	1	1	0	1	0	+1
$^{108}_{33}\text{As}^{-3}$	33	108	75	33	36	-3
$^{247}_{97}\text{Bk}$	97	247	150	97	97	0
$^{66}_{22}\text{Ti}^{+2}$	22	66	44	22	20	+2