



Isotopes: Find the Message

Date:

Name:

In the chart below, record the missing values and isotopes using a Periodic Table. Then, find the shape with the corresponding missing value or isotope and shade it in.

Isotope	Standard Notation	Atomic Mass	Atomic Number	Number of Protons	Number of Neutrons	Number of Electrons
H-2						
	$^{14}_6\text{C}$					
		37	17			
				28	30	
					32	28
				29	36	
Se-78						
	$^{86}_{36}\text{Kr}$					
		79			44	
		81			46	
U-235						
		204			122	
		204			124	
				76	114	

82	C-14			24	Os-114			3	Ge-72		39	Ti-46		Sn-114	75	Eu-152		Ni-60	Os-190			
6		60		12			U-238		88		Zn-68		91		67			In-115		76		
15		H-1		186			Ne-20				97	Nd-146			45	Xe-134		Hg-200		2		
235	38		Dy-162			208		11	Br-80		27	205		99		Se-80		10	S-34		34	98
Cl-37		1		72		Br-81		92		Cu-65		17		80		14				143		
		100		41		77		33		Hg-204		36				Kr-86		21		73		
93		Kr-82		94	Ni-58		86		4	44				61	35	7	H-3		Pb-206			
50			238		Ca-44		21		8	83		29				28	O-18		9	31	19	
20			78	Pb-204		B-10										235		65		C-12		
				191		66		58		144		190		5		Br-79						



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Date:

Name: **Solutions**

In the chart below, record the missing values and isotopes using a Periodic Table. Then, find the shape with the corresponding missing value or isotope and shade it in.

Isotope	Standard Notation	Atomic Mass	Atomic Number	Number of Protons	Number of Neutrons	Number of Electrons
H-2	${}^2_1\text{H}$	2	1	1	1	1
C-14	${}^{14}_6\text{C}$	14	6	6	8	6
Cl-37	${}^{37}_{17}\text{Cl}$	37	17	17	20	17
Ni-58	${}^{58}_{28}\text{Ni}$	58	28	28	30	28
Ni-60	${}^{60}_{28}\text{Ni}$	60	28	28	32	28
Cu-65	${}^{65}_{29}\text{Cu}$	65	29	29	36	29
Se-78	${}^{78}_{34}\text{Se}$	78	34	34	44	34
Kr-86	${}^{86}_{36}\text{Kr}$	86	36	36	50	36
Br-79	${}^{79}_{35}\text{Br}$	79	35	35	44	35
Br-81	${}^{81}_{35}\text{Br}$	81	35	35	46	35
U-235	${}^{235}_{92}\text{U}$	235	92	92	143	92
Pb-204	${}^{204}_{82}\text{Pb}$	204	82	82	122	82
Hg-204	${}^{204}_{80}\text{Hg}$	204	80	80	124	80
Os-190	${}^{190}_{76}\text{Os}$	190	76	76	114	76

82	C-14		24	Os-114		3	Ge-72		39	Ti-46		Sn-114		75	Eu-152		Ni-60		Os-190		
6		60		12		U-238		88		Zn-68		91				67		In-115		76	
15		H-1		186		Ne-20				97		Nd-146				45		Xe-134		Hg-200	
235		38		Dy-162		208		11		Br-80		27				205		99			
Cl-37		1		72		Br-81		92		Cu-65		17		80		14				143	
		100				41		77		33		Hg-204		36				Kr-86			
93		Kr-82		94		Ni-58		86		4		44		61		35		7		H-3	
50				238		Ca-44		21		8		83		29				28		O-18	
20		78		Pb-204		B-10				58		144		190		5		Br-79		235	
				191		66														C-12	

