

Name: Solutions

Period: _____

Isotopes Worksheet

- What is an isotope? Isotopes are atoms with the same number of protons but different numbers of neutrons
- What does the number next to isotopes signify? The mass number - # of protons and neutrons in nucleus
- How can you tell isotopes apart? Mass, neutrons

For each of the following isotopes, write the number of protons, neutrons, and electrons.

	Chromium-58	Chromium-63
# of protons	24	24
# of neutrons	34	39
# of electrons	24	24

	Carbon-12	Carbon-16
# of protons	6	6
# of neutrons	6	10
# of electrons	6	6

	Nitrogen-15	Nitrogen-20
# of protons	7	7
# of neutrons	8	13
# of electrons	7	7

	Sulfur-23	Sulfur-25
# of protons	16	16
# of neutrons	17	9
# of electrons	16	16

	Sodium-12	Sodium-20
# of protons	11	11
# of neutrons	11	9
# of electrons	11	11

	Selenium-30	Selenium-35
# of protons	34	34
# of neutrons	not possible	1
# of electrons	34	34

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Fill in the isotope names and any missing information, including isotope numbers from the chart. Use your periodic table and the information provided. The Isotopes in each chart are the same element.

Name and Atomic Mass	manganese - 42	manganese - 40
# of protons	25	25
# of neutrons	17	15
# of electrons	25	25

Name and Atomic Mass	germanium - 62	germanium - 64
# of protons	32	32
# of neutrons	30	32
# of electrons	32	32

Name and Atomic Mass	palladium - 94	palladium - 97
# of protons	46	46
# of neutrons	48	51
# of electrons	46	46

Name and Atomic Mass	Cesium - 168	Cesium - 166
# of protons	55	55
# of neutrons	113	111
# of electrons	55	55

Name and Atomic Mass	Iron - 53	Iron - 56
# of protons	26	26
# of neutrons	27	30
# of electrons	26	26

Name and Atomic Mass	Iodine - 85	Iodine - 88
# of protons	53	53
# of neutrons	32	35
# of electrons	53	53

Name and Atomic Mass	Germanium - 65	Germanium - 68
# of protons	32	32
# of neutrons	33	36
# of electrons	32	32

Name and Atomic Mass	Carbon - 10	Carbon - 12
# of protons	6	6
# of neutrons	4	6
# of electrons	6	6

Name and Atomic Mass	Sodium - 22	Sodium - 25
# of protons	11	11
# of neutrons	11	14
# of electrons	11	11

Name and Atomic Mass	Chromium - 54	Chromium - 56
# of protons	24	24
# of neutrons	30	32
# of electrons	24	24