# Isotope and Atomic mass = Worksheet

1. What is an isotope?

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1. How can you tell isotopes apart?

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**For each of the following isotopes, write the number of protons, neutrons, and electrons, or isotope name and mass number**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | |  | Chromium- 58 | Chromium- 63 | | # of protons |  |  | | # of neutrons |  |  | | # of electrons |  |  | | |  |  |  | | --- | --- | --- | |  | Carbon-12 | Carbon-14 | | # of protons |  |  | | # of neutrons |  |  | | # of electrons |  |  | |

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| |  |  |  | | --- | --- | --- | |  | Nitrogen-14 | Nitrogen-15 | | # of protons |  |  | | # of neutrons |  |  | | # of electrons |  |  | | |  |  |  | | --- | --- | --- | |  | Sulfur-23 | Sulfur-25 | | # of protons |  |  | | # of neutrons |  |  | | # of electrons |  |  | |

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|  |  |  |  |  |  |  |
| # of protons | 25 |  |  | # of protons | 32 |  |
| # of neutrons | 17 | 15 | # of neutrons | 30 | 32 |
| # of electrons |  |  | # of electrons |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| # of protons | 46 |  | # of protons |  | 55 |
| # of neutrons | 48 | 51 | # of neutrons | 113 | 111 |
| # of electrons |  |  | # of electrons |  |  |