

The Atom

The smallest particle of an element that still retains all the characteristics of the element is a(n) _____.

Name the three subatomic particles of an atom, and indicate the charge on each.

Name	Charge
_____	_____
_____	_____
_____	_____

The small central part of the atom that contains most of the mass of the atom is the _____. Both the _____ and _____ reside here. The nucleus is _____ charged.

The _____ region of an atom contains the electrons. It is _____ charged.

Subatomic Particle	Mass, grams	Mass, amu
proton	1.673×10^{-24}	1.0073
neutron	1.675×10^{-24}	1.0087
electron	9.1094×10^{-28}	5.486×10^{-4}

Calculate the mass, in g, of a carbon nucleus that contains 6 protons and 7 neutrons. Calculate the mass in amu.