

Subatomic particles (16–18)

Before you answer the puzzles below fill in the table of the properties of the subatomic particles using:

nucleus proton 1 0 electron

name	mass	location	charge
	1	in the nucleus with the neutrons	+1
neutron		in the nucleus with the protons	
	1/1840 (0)	in orbit around the nucleus	-1
	mass number	centre of the atom	+(atomic number)

Gridlock 1

Each row, column and 2 x 2 box contains information about the four properties of subatomic particles listed above. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

name		mass	
neutron			1 [proton]
	in orbit around the nucleus		+(atomic number)
location		charge	

gridlocks – can you unlock the grid?

Gridlock 2

Each row, column and 2 x 2 box contains information about each of the four particles in the table.

name		mass	
	proton		mass number
			1 [proton]
in the nucleus with the protons			-1
location		charge	

Gridlock 3

Each row, column and 2 x 2 box contains information about each of the four particles in the table.

name		mass	
neutron			
		mass number	
		+1	
	in orbit around the nucleus		
location		charge	

Subatomic particles (16–18) – answers

Before you answer the puzzles below fill in the table of the properties of the subatomic particles using:

nucleus proton 1 0 electron

name	mass	location	charge
proton	1	in the nucleus with the neutrons	+1
neutron	1	in the nucleus with the protons	0
electron	1/1840 (0)	in orbit around the nucleus	-1
nucleus	mass number	centre of the atom	+(atomic number)

Puzzle 1 – answers

Each row, column and 2 x 2 box contains information about the four properties of subatomic particles listed above. Use your problem solving skills and the answers in the table above to fill in the blank boxes.

name		mass	
neutron	nucleus	1/1840	1 [proton]
electron	proton	mass number	1 [neutron]
in the nucleus with the neutrons	in orbit around the nucleus	0	+(atomic number)
centre of the atom	in the nucleus with the protons	+1	-1
location		charge	

gridlocks – can you unlock the grid?

Puzzle 2 – answers

Each row, column and 2 x 2 box contains information about each of the four properties of sub-atomic particles in the table.

name		mass	
electron	proton	1 [neutron]	mass number
nucleus	neutron	1/1840	1 [proton]
in the nucleus with the neutrons	in orbit around the nucleus	+(atomic number)	0
in the nucleus with the protons	centre of the atom	+1	-1
location		charge	

Puzzle 3 – answers

name		mass	
neutron	nucleus	1/1840	1 [proton]
electron	proton	mass number	1 [neutron]
centre of the atom	in the nucleus with the protons	+1	-1
in the nucleus with the neutrons	in orbit around the nucleus	0	+(atomic number)
location		charge	