

Name :

Date :

# Chemistry Atomic Structure Worksheet

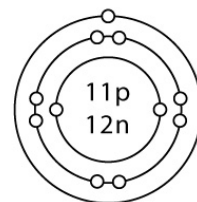
① For the atomic structure shown below right, answer the following questions.

i) Which element is the atom shown above? \_\_\_\_\_

ii) What is the chemical symbol of the element? \_\_\_\_\_

iii) What is the mass of the atom shown above? \_\_\_\_\_

iv) How many valence electrons are shown in the atom above? \_\_\_\_\_



② Which subatomic particle did J.J. Thomson discover in order to create his plum pudding model of the atom? \_\_\_\_\_

③ The nucleus was discovered by which scientist:

a) Thomson

b) Dalton

c) Rutherford

d) Democritus

④ What is the mass of Carbon-14: \_\_\_\_\_

⑤ What is the number of protons in Carbon-14: \_\_\_\_\_

⑥ What is the number of neutrons in Carbon-14: \_\_\_\_\_

⑦ What is the number of protons in the radioactive Uranium-238: \_\_\_\_\_

⑧ What is the number of neutrons in Sulfur-33: \_\_\_\_\_

⑨ Neutral atoms of the same element can differ in

a) Mass number

b) Atomic number

c) Number of protons and electrons

⑩ The basic principles of atomic theory were first conceived by

a) Avogadro

b) Bohr

c) Dalton

Name :

Date :

# Chemistry Atomic Structure Worksheet

## Answers

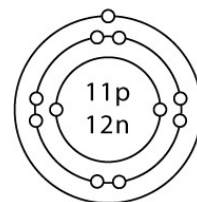
① For the atomic structure shown below right, answer the following questions.

i) Which element is the atom shown above? Sodium

ii) What is the chemical symbol of the element? Na

iii) What is the mass of the atom shown above? 23 amu

iv) How many valence electrons are shown in the atom above? 11



② Which subatomic particle did J.J. Thomson discover in order to create his plum pudding model of the atom? Electron

③ The nucleus was discovered by which scientist:

a) Thomson

b) Dalton

c) Rutherford

d) Democritus

④ What is the mass of Carbon-14: 14 amu

⑤ What is the number of protons in Carbon-14: 6

⑥ What is the number of neutrons in Carbon-14: 8

⑦ What is the number of protons in the radioactive Uranium-238: 92

⑧ What is the number of neutrons in Sulfur-33: 17

⑨ Neutral atoms of the same element can differ in

a) Mass number

b) Atomic number

c) Number of protons and electrons

⑩ The basic principles of atomic theory were first conceived by

a) Avogadro

b) Bohr

c) Dalton