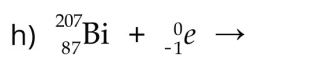
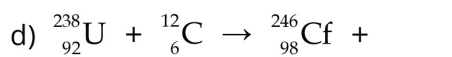
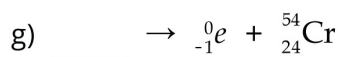
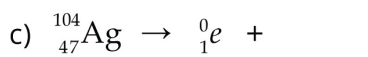
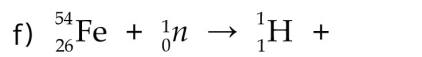
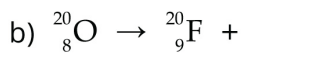
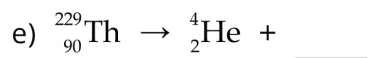
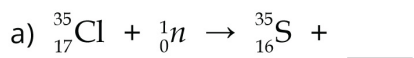


Name : \_\_\_\_\_ Date : \_\_\_\_\_

## Nuclear Equations Worksheet

1. Complete the following nuclear reactions :



2. Write the balanced equations for these nuclear reactions.

a) Neutron emission by  ${}^{88}\text{Br}$

b) Electron absorption by  ${}^{116}\text{Sb}$

c) Positron emission by  ${}^{184}\text{Hg}$

d) Alpha emission by  ${}^{229}\text{Th}$

e) Neutron capture by  ${}^{200}\text{Hg}$

3. Match these statements with a given choice (A, B, or C). They may be used more than once.

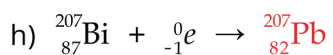
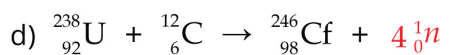
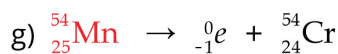
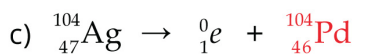
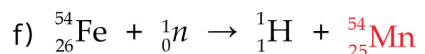
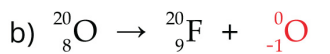
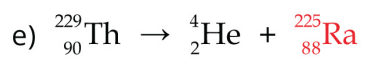
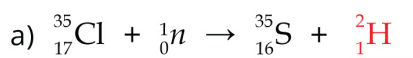
A – Fission                  B – Fusion                  C – Cold fusion

- i. The type of reaction in the sun. \_\_\_\_\_
- ii. The type of reaction in atomic bombs. \_\_\_\_\_
- iii. An atomic nucleus is split into two roughly equal parts. \_\_\_\_\_
- iv. Requires incredibly high temperatures. \_\_\_\_\_
- v. Type of reaction in a nuclear power plant. \_\_\_\_\_
- vi. Takes place at room temperature. \_\_\_\_\_
- vii. 2 very light isotopes form a heavier one. \_\_\_\_\_
- viii. Main type of reaction in a hydrogen bomb. \_\_\_\_\_

Name : \_\_\_\_\_ Date : \_\_\_\_\_

## Nuclear Equations Worksheet

1. Complete the following nuclear reactions :

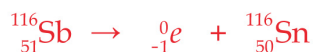


2. Write the balanced equations for these nuclear reactions.

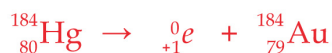
a) Neutron emission by  ${}^{88}\text{Br}$



b) Electron absorption by  ${}^{116}\text{Sb}$



c) Positron emission by  ${}^{184}\text{Hg}$



d) Alpha emission by  ${}^{229}\text{Th}$



e) Neutron capture by  ${}^{200}\text{Hg}$



3. Match these statements with a given choice (A, B, or C). They may be used more than once.

A – Fission                  B – Fusion                  C – Cold fusion

- i. The type of reaction in the sun.    B
- ii. The type of reaction in atomic bombs.    A
- iii. An atomic nucleus is split into two roughly equal parts.    A
- iv. Requires incredibly high temperatures.    B
- v. Type of reaction in a nuclear power plant.    A
- vi. Takes place at room temperature.    C
- vii. 2 very light isotopes form a heavier one.    B
- viii. Main type of reaction in a hydrogen bomb.    B