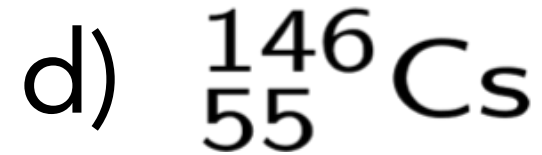
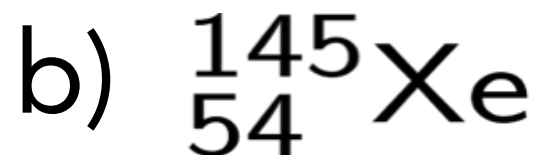
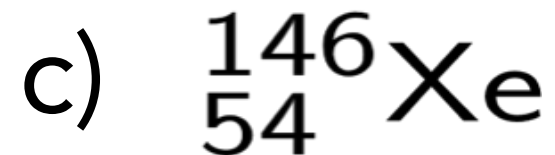
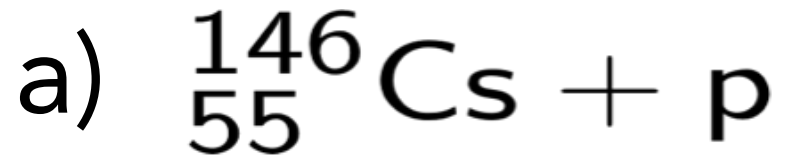
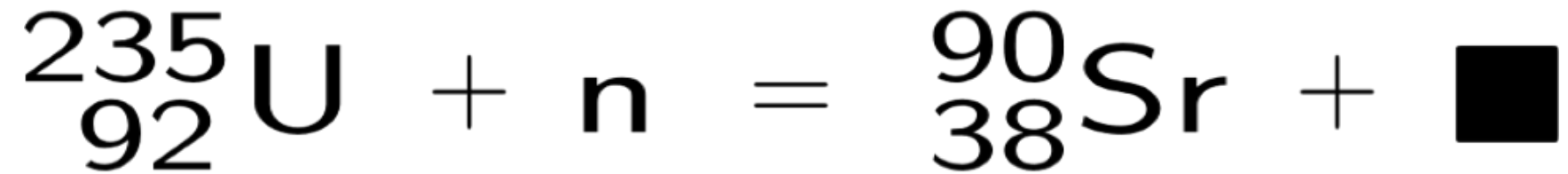


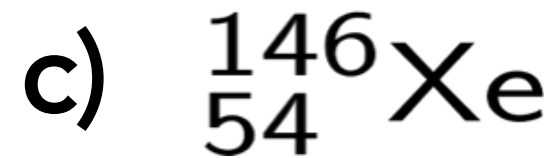
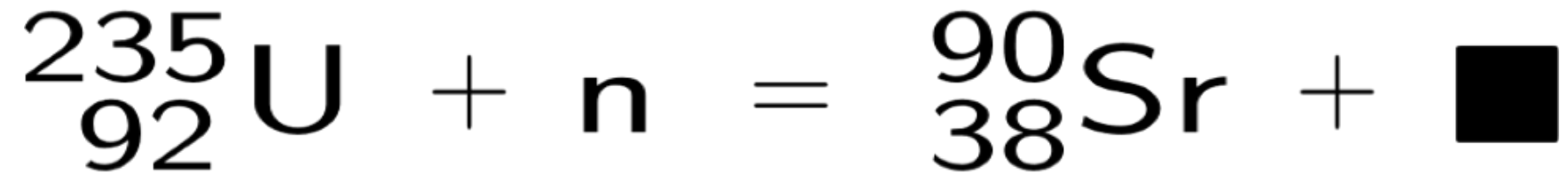
# Concept questions

Discussion Week 2

Complete the following reaction equation:



Complete the following reaction equation:



What is the atom fraction of hydrogen in water ( $\text{H}_2\text{O}$ )? What is the atom fraction of hydrogen in heavy water ( $\text{D}_2\text{O}$ )?

- a) 0.50; 0.66
- b) 0.50; 0.50
- c) 0.66; 0.66
- d) 0.66; 0.80

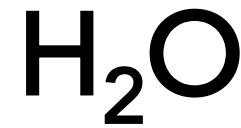
What is the atom fraction of hydrogen in water ( $\text{H}_2\text{O}$ )? What is the atom fraction of hydrogen in heavy water ( $\text{D}_2\text{O}$ )?

a) 0.50; 0.66

b) 0.50; 0.50

c) **0.66; 0.66**

d) 0.66; 0.80



2  $^1\text{H}$  atoms (2/3)

1 O atom (1/3)



2  $^2\text{H}$  atoms (2/3)

1 O atom (1/3)

Approximately, what is the mass fraction of hydrogen in water ( $\text{H}_2\text{O}$ )? What is the mass fraction of hydrogen in heavy water ( $\text{D}_2\text{O}$ )?

- a) 0.11; 0.44
- b) 0.11; 0.20
- c) 0.25; 0.50
- d) 0.22; 0.88

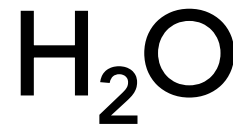
Approximately, what is the mass fraction of hydrogen in water (H<sub>2</sub>O)? What is the mass fraction of hydrogen in heavy water (D<sub>2</sub>O)?

a) 0.11; 0.44

**b) 0.11; 0.20**

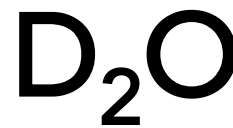
c) 0.25; 0.50

d) 0.22; 0.88



2 <sup>1</sup>H atoms, m ~1 (2/18)

1 O atom, m ~16 (16/18)



2 <sup>2</sup>H atoms, m ~2 (4/20)

1 O atom, m ~16 (16/20)