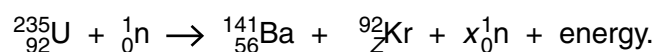


- 7 (a) Uranium (U) has at least fourteen isotopes.
Explain what is meant by *isotopes*.

.....
.....
..... [2]

- (b) One possible nuclear reaction involving uranium is



- (i) State three quantities that are conserved in a nuclear reaction.

1.
.....
2.
.....
3.
..... [3]

- (ii) this reaction, determine the value of

1. Z ,

$Z =$ [1]

2. x .

$x =$ [1]