

29 An atom of yttrium has a nucleon number of 89 and a proton number of 39.

The masses of the proton, the neutron and the electron are shown in the table.

particle	mass / u
proton	1.00728
neutron	1.00867
electron	0.00055

The particles making up an atom of yttrium are separated to infinity.

What is the total mass of the separated particles?

A 89.000 u

B 89.739 u

C 129.056 u

D 129.077 u

30 Which quantity remains constant during a collision between two particles?