

1 Helium forms an ion ${}^3_2\text{He}^+$.

Three statements about this ion are listed.

- 1 It contains two protons.
- 2 It contains three neutrons.
- 3 It contains one electron.

Which statements are correct?

- A** 1, 2 and 3 **B** 1 and 3 only **C** 2 and 3 only **D** 2 only

3 Methanethiol, CH_3SH , burns as shown.



A sample of 10 cm^3 of methanethiol gas was reacted with 60 cm^3 of oxygen. Both samples were measured at room conditions.

What would be the final volume of the resultant mixture of gases measured at room temperature?

- A** 20 cm^3 **B** 30 cm^3 **C** 50 cm^3 **D** 70 cm^3