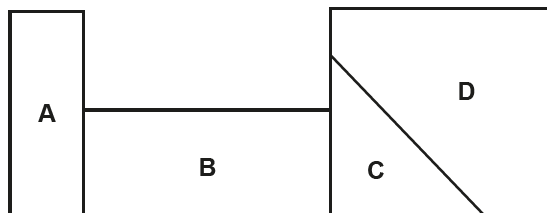


Name:

Class:



This is a section of the Periodic Table.



In which section of the Periodic Table would you find non-metals?

DLead nitrate contains lead ions, Pb^{2+} , and nitrate ions, NO_3^- .

What is the formula for lead nitrate?



Give the formula for a molecule of ammonia.



Bromine is in Group 7.

Give the number of electrons in the outer shell of a bromine atom.

7What is the relative formula mass (M_r) of titanium dioxide, TiO_2 ?

$48 + 2(16) = 80$

Diamonds cannot conduct electricity. Explain, in terms of bonding, why diamond does **not** conduct electricity.**An answer to include:**

- All of the outer shell / valence electrons of each carbon atom are used in bonding (or equivalent).

Acceptable alternatives: Each carbon atom forms four covalent bonds. All four outer electrons are held in covalent bonds.

- Therefore, there are no delocalised / free / mobile electrons to move and carry charge.

The table shows information about two isotopes of element X.

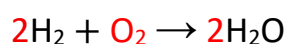
	Mass number	Percentage abundance (%)
Isotope 1	63	70
Isotope 2	65	30

Calculate the relative atomic mass (A_r) of element X

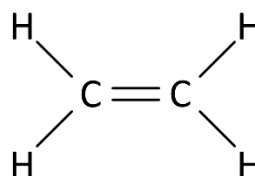
$(63 \times 70) + (65 \times 30) \div 100$

Relative atomic mass = **63.6**

Complete the balanced equation for the overall reaction in a hydrogen fuel cell.



Identify the following compound.

**Ethene**