1 Most substances are either elements, compounds or mixtures.

How many known elements exist?

Circle the correct answer. [1 mark]

About 50  
About 100  
About 1000  
More than 1000

1 (a) (i) How many known compounds exist?

Circle the correct answer. [1 mark]

About 50  
About 100  
About 1000  
More than 1000

1 (a) (ii) Oxygen is an example of an element. The following information is given about oxygen in the periodic table.

Mass number (atomic mass) → 16

Atomic number → 8

What information about oxygen is given by the mass number and the atomic number? [2 marks]

Atomic number ………………………………………………………………………………………………

………………………………………………………………………………………………………………

Mass number ………………………………………………………………………………………………

………………………………………………………………………………………………………………

1 (b) (i) Which of the given numbers identifies the element? [1 mark]

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………
1 (b) (ii) The diagram shows an atom of the element beryllium and its data from the periodic table.

![Diagram 1](image)

Table 1 shows two of the sub-atomic particles that are present in an atom of beryllium.

<table>
<thead>
<tr>
<th>Particle</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protons</td>
<td>...........</td>
</tr>
<tr>
<td>Neutrons</td>
<td>...........</td>
</tr>
</tbody>
</table>

Complete the table to show the number of each of the particles. \[2\text{ marks}\]

1 (b) (iii) Complete Diagram 1 to show the number and position of electrons that are present in an atom of beryllium. \[3\text{ marks}\]

(Total 11 marks)

End

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