PARTS OF AN ATOM

An atom is made up of protons and neutrons which are in the nucleus, and electrons which are in the electron cloud surrounding the atom. The atomic number equals the number of protons. The electrons in a neutral atom equal the number of protons. The mass number equals the sum of the protons and neutrons. The charge indicates the number of electrons that have been lost or gained. A positive charge indicates the number of electrons (which are negatively charged) lost. A negative charge indicated the number of electrons gained.

This carbon atom would have 6 protons, 6 neutrons, and 6 electrons with a charge of 0.

Complete the following chart.

<table>
<thead>
<tr>
<th>Element/ion</th>
<th>Atomic Number</th>
<th>Mass Number</th>
<th>Charge</th>
<th>Protons</th>
<th>Neutrons</th>
<th>Electrons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mg</td>
<td>12</td>
<td>24</td>
<td>0</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Na&lt;sup&gt;+&lt;/sup&gt;</td>
<td></td>
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</tr>
<tr>
<td>F&lt;sup&gt;-&lt;/sup&gt;</td>
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</tr>
<tr>
<td>Al&lt;sup&gt;3+&lt;/sup&gt;</td>
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</tr>
<tr>
<td>H</td>
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<td></td>
</tr>
<tr>
<td>Mg&lt;sup&gt;2+&lt;/sup&gt;</td>
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</tr>
<tr>
<td>Ag</td>
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<td></td>
</tr>
<tr>
<td>S&lt;sup&gt;-2&lt;/sup&gt;</td>
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<td></td>
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</tr>
<tr>
<td>Cu</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Cl&lt;sup&gt;-&lt;/sup&gt;</td>
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</tr>
<tr>
<td>Be&lt;sup&gt;2+&lt;/sup&gt;</td>
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</tr>
</tbody>
</table>

Write the symbols for the following elements.

1. oxygen   _____
2. hydrogen   _____
3. chlorine   _____
4. sodium   _____
5. fluorine   _____
6. carbon   _____
7. helium   _____
8. nitrogen   _____
9. copper   _____
10. sulfur    _____
11. magnesium   _____
12. manganese   _____
13. neon   _____
14. bromine   _____
15. phosphorus   _____
16. silver   _____
17. lead   _____
18. iron   _____
19. calcium  _____
20. potassium  _____

Write the name of the element that corresponds to each of the following symbols.

21. Cu ____________________
22. K ____________________
23. C ____________________
24. Au ____________________
25. Zn ____________________
26. Pb ____________________
27. Fe ____________________
28. Na ____________________
29. S ____________________
30. Al ____________________
31. Ca ____________________
32. Ag ____________________
33. P ____________________
34. O ____________________
35. I ____________________
36. Sn ____________________
37. H ____________________
38. F ____________________
39. Ni ____________________
40. Hg ____________________