Factors – Square Numbers and Prime Numbers.

Meet factor monster '16' and its friend, factor monster '19'.

16 is a square number. It has an odd number of factors because \(4 \times 4 = 16\) (you don’t need to write 4 twice). The factors of 16 are 1, 2, 4, 8 and 16.

19 is a prime number. A prime number is a whole number greater than 1 whose only factors are 1 and itself. So, the factors of 19 are 1 and 19.

Work out the factors of the numbers shown by the factor monsters. If the number is a square number draw a square around the number above the monster, otherwise draw a circle.

<table>
<thead>
<tr>
<th>Number</th>
<th>Factors</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>1, 3, 9</td>
<td>Square</td>
</tr>
<tr>
<td>11</td>
<td>1, 11</td>
<td>Prime</td>
</tr>
<tr>
<td>23</td>
<td>1, 23</td>
<td>Prime</td>
</tr>
<tr>
<td>25</td>
<td>1, 5, 25</td>
<td>Square</td>
</tr>
<tr>
<td>31</td>
<td>1, 31</td>
<td>Prime</td>
</tr>
<tr>
<td>36</td>
<td>1, 2, 3, 4, 6, 9, 12, 18, 36</td>
<td>...</td>
</tr>
</tbody>
</table>

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ANSWERS

The factors of 9 are: 1, 3 and 9

This is a square number.

The factors of 11 are: 1 and 11

This is a prime number.

The factors of 23 are: 1 and 23

This is a prime number.

The factors of 25 are: 1, 5 and 25

This is a square number.

The factors of 31 are: 1 and 31

This is a prime number.

The factors of 36 are: 1, 2, 3, 6, 12, 18 and 36

This is a square number.