1. Your friend is having difficulty understanding square roots and surds. How would you explain them to her? Give an example to support properties (2) - (5) on page 27 of the notes.

2. Complete the following table.

<table>
<thead>
<tr>
<th>Terminology</th>
<th>Definition</th>
<th>Example</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>A natural number greater than one whose only factors are one and itself</td>
<td>page 17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relatively Prime</td>
<td>page 18</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\frac{5}{12} = \frac{15}{36}$</td>
<td>page 19</td>
<td></td>
</tr>
<tr>
<td>Surd</td>
<td>$\sqrt{7}$</td>
<td>page 29</td>
<td></td>
</tr>
</tbody>
</table>

3. Each equation below has one of two different solutions. Use two different coloured pens/pencils to group the equations into two categories based on their solutions.

\[
(-2)^3 + 2x = x + 2 \quad \quad \quad x = \text{HCF}^* \text{ of 56 and 104}
\]

\[
12x - 8 = 3x + 64 \quad \quad \quad 4x = \sqrt{6} \times \sqrt{21} \times \sqrt{14} - 2
\]

\[
(\frac{5}{12} + \frac{1}{3}) \times \sqrt{144} - x = (-1)^{371} \quad \quad \quad x = \frac{(2^{56})^{102} \times 2^{814}}{2^{6000} \times (2^{20} \times 2^{123})}
\]

\[
x - 2 \quad \frac{\sqrt{3}}{10\sqrt{6}} = \quad x = \left| \left( -\frac{5}{8} - 2^{-3} \right) \times \frac{40}{3} \right|
\]

* HCF denotes highest common factor.