(1) Two similar cuboids are shown below. One has a side length of 6cm and the other 12cm.  
(a) Given the surface area of the smaller cuboid is 88cm² find the surface area of the larger cuboid.  
(b) Given the volume of the larger cuboid is 384cm³ find the volume of the smaller cuboid.

(2) Three Russian dolls are mathematically similar. The surface area of the large doll is 64cm², the middle doll 16cm² and the small doll 4cm². 
(a) Given the volume of the middle doll is 320cm³ find the volume of the other two dolls.  
(b) Given the height of the smallest doll is 3cm find the height of the other two dolls.

(3) The table below shows scale factors for a range of similar toys made in a factory.

<table>
<thead>
<tr>
<th>Toy #1 to Toy #2</th>
<th>Linear</th>
<th>Area</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toy #3 to Toy #4</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Toy #5 to Toy #6</td>
<td></td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Toy #7 to Toy #8</td>
<td></td>
<td></td>
<td>216</td>
</tr>
<tr>
<td>Toy #9 to Toy #10</td>
<td></td>
<td></td>
<td>64/125</td>
</tr>
</tbody>
</table>

(a) Given Toy 4 has a volume of 412cm³ find the volume of Toy 3.  
(b) Given Toy 7 has a height of 2.5cm find the height of Toy 8.  
(c) Given Toy 2 has a surface area of 4cm² find the surface area of Toy 1.  
(d) Given Toy 9 has a surface area of 42cm² find the surface area of Toy 10.  
(e) The surface area of Toy 3 is a quarter of that of Toy 9. Find out how much smaller the volume of Toy 3 is than Toy 9.

(4) Two similar rugby balls are shown below. The length smaller ball is 2/3 the length of the larger one.  
(a) Find the area and volume scale factors.  
(b) Given the surface area of the smaller ball is 212cm² find the surface area of the larger ball.  
(c) Given the volume of the larger ball is 80cm³ find the volume of the smaller ball.