

<p>a) A cuboidal tank with base 15cm by 25cm is filled to a depth of 10cm with water. A solid sphere, radius <math>r</math>, is dropped into the tank.</p> <p>The depth of the water rises by 4cm. What is the radius of the sphere, <math>r</math>, correct to two decimal places?</p>	<p>a) A cuboidal tank with base 15cm by 25cm is filled to a depth of 10cm with water. A solid sphere, radius <math>r</math>, is dropped into the tank.</p> <p>The depth of the water rises by 4cm. What is the radius of the sphere, <math>r</math>, correct to two decimal places?</p>
<p>b) A cylindrical tank with base radius 10cm is filled to a depth of 18cm with water. A solid cube, side length <math>x</math>, is dropped into the tank.</p> <p>The depth of the water is now 20cm. What is the side length of the cube, <math>x</math>, correct to two decimal places?</p>	<p>b) A cylindrical tank with base radius 10cm is filled to a depth of 18cm with water. A solid cube, side length <math>x</math>, is dropped into the tank.</p> <p>The depth of the water is now 20cm. What is the side length of the cube, <math>x</math>, correct to two decimal places?</p>
<p>c) A cuboidal tank with base 20cm by 12cm is filled to a depth of 10cm with water. A solid sphere, radius 3cm, is dropped into the tank.</p> <p>What is the depth of the water now? Give your answer to two decimal places.</p>	<p>c) A cuboidal tank with base 20cm by 12cm is filled to a depth of 10cm with water. A solid sphere, radius 3cm, is dropped into the tank.</p> <p>What is the depth of the water now? Give your answer to two decimal places.</p>