

Name: \_\_\_\_\_

Where appropriate, give answers on this worksheet correct to one decimal place.

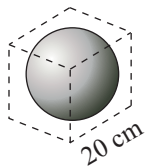
1. Write the formula that can be used to calculate the volume of a *sphere* with radius  $r$ .



Calculate the *volume* of a tennis ball with a radius of 3.3 cm.

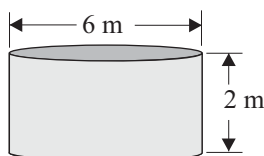
2. A sculptor makes balls (spheres) from stone *cubes* of side length 20 centimetres.

- (a) Calculate the *volume* of the *cube*.

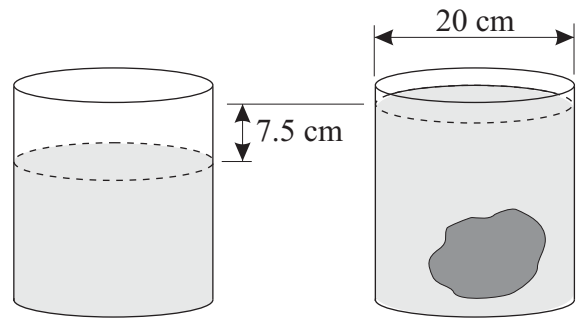



- (b) What is the *volume* of the *largest ball* she could make from the cube?

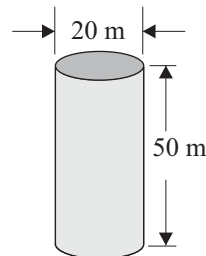
3. Calculate the *volume*, in  $\text{m}^3$ , of this cylinder.




4. A rock is dropped into a cylinder with a diameter of 20 cm and the water level rises by 7.5 cm.  
What is the volume of the rock?




5. (a) Calculate the *capacity*, in  $\text{m}^3$ , of the wheat silo with the dimensions shown.




- (b) A rectangular railway truck has inside dimensions of 8 m long, 3 m wide and 2 m high.  
What is the *capacity*, in  $\text{m}^3$ , of one of these railway trucks?

- (c) How *many railway trucks* could be filled from the silo?