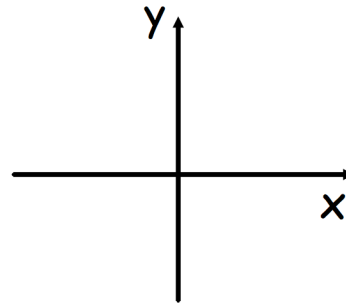


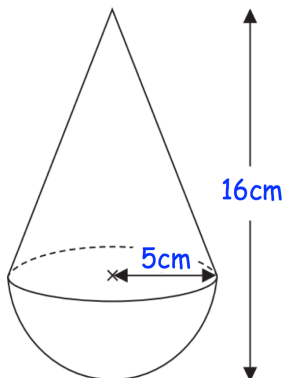


Sketch  $y = x^3 - 2$



Line  $L_1$  is parallel to  $5x - 7y = 31$  and passes through the point  $(4, 16)$

Find the coordinates of the point where  $L_1$  intersects the x-axis.



Shown above is a solid made from a cone and a hemisphere.

Find the volume of the solid

The solid is made from a material with density  $3.4\text{g/cm}^3$

Find the mass of the solid

$$f(x) = x^2 + 2$$

$$g(x) = 5 - x$$

Arrange in order

$$fg(3) \quad gf(3) \quad ff(3) \quad gg(3)$$