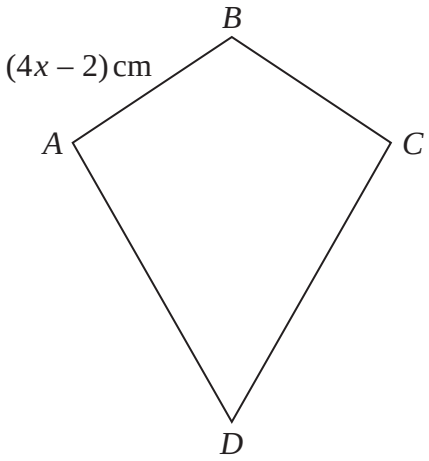
**1** *ABCD* is a kite.




$AB = (4x - 2)\,\text{cm}$

Jasper says that $x$ could be 0.5

(a) Explain why Jasper cannot be correct.

.....

.....

.....

**(1)**

$AD = 3AB$
The kite has a perimeter of 64 cm.

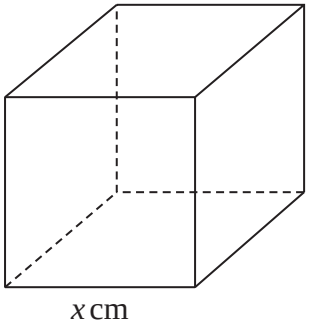
(b) Find the value of $x$.

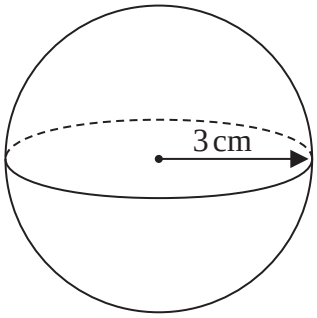
$x =$.....

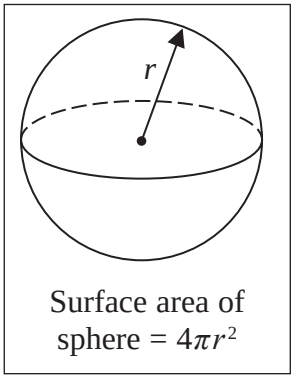
**(3)**

**(Total for Question 1 is 4 marks)**

**2** The diagram shows a cube with edges of length $x$ cm and a sphere of radius 3 cm.




The surface area of the cube is equal to the surface area of the sphere.

Show that $x = \sqrt{k\pi}$ where $k$ is an integer.

**(Total for Question 2 is 4 marks)**

**3** There are $x$ sweets in a box.

There are $y$ sweets in a packet.

(c) Write an expression, in terms of $x$ and $y$, for the total number of sweets in 3 boxes and 2 packets.

.....

**(2)**

**(Total for Question 3 is 7 marks)**