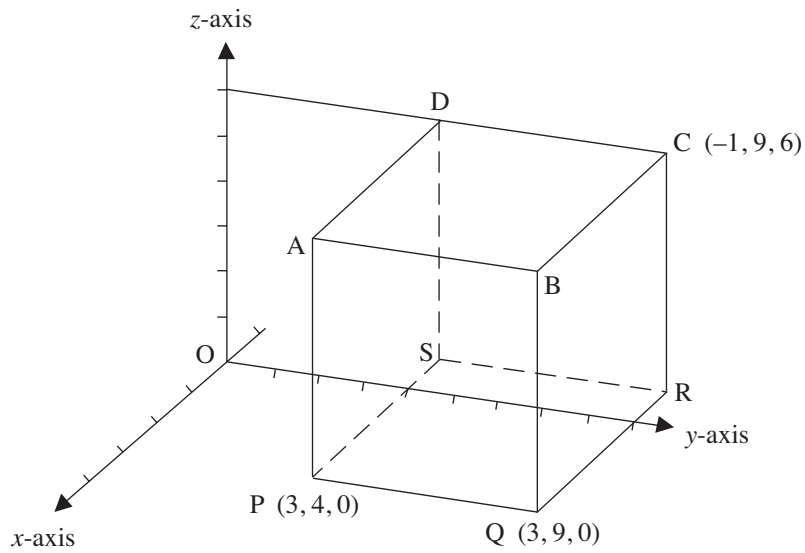
7.



The diagram shows a cuboid.

The co-ordinates of P are $(3, 4, 0)$.

The co-ordinates of Q are $(3, 9, 0)$.

The co-ordinates of C are $(-1, 9, 6)$.

(a) Write down the (x, y, z) co-ordinates

(i) of R (ii) of B.

(b) Write down the lengths of each of the following edges of the cuboid.

(i) PQ (ii) QR.

(c) Calculate the total surface area of the cuboid.

8. A beach ball has diameter 30 cm. What is its surface area, to the nearest tenth of m^2 ?

9. What is the total surface area of a cone of slant height 5 cm and base radius 1 cm? Give your answers in terms of π.

10. What is the total surface area of a cone of perpendicular height 10 cm and base radius 3 cm? Give your answer to 1 decimal place.

11. What is the total surface area of a square-based cone of slant height 5 cm and base side length 4 cm?

12. What is the total surface area of a square-based cone of perpendicular height 8 cm and side length 5 cm? Give your answer to 1 decimal place.

Information

Smaller animals have more surface area compared to their volume than larger animals. Because of this, smaller animals tend to lose water and body heat more easily than larger animals. Children have $2\frac{1}{2}$ *times as much surface area compared to volume as adults. Thus children are more prone to dehydration and hypothermia.*