# SCORE

# Geometry
### with Classified
## answer book

# 8

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# 4- Circumference of a circle

1. Which one of these is equal to π?Put a
   tick (✓) in the box by your answer.

   ☐ The circumference of a circle divided by its diameter.
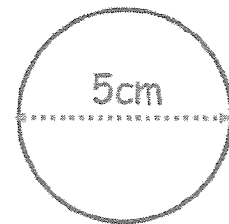
   ☐ The diameter of a circle divided by its circumference.

   ☐ The circumference of a circle divided by its radius.

   ☐ The radius of a circle divided by its circumference.

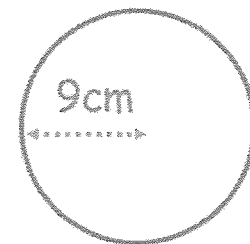2. Shown below is a circle with diameter 5cm.

   Calculate the circumference of the circle.
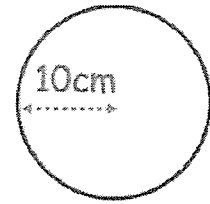   Give your answer to 1 decimal place.

   5cm

   ........................cm

3. Shown below is a circle with radius 9cm.

   Work out the circumference of the
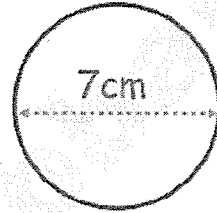   circle. Give your answer to 1 decimal
   place.

   9cm

   ........................cm

4. Shown below is a circle with radius 10cm.

   Work out the circumference of the circle.
   Give your answer in terms of π.

   10cm

   ........................cm

5. Shown below is a circle with diameter 7cm.

   Work out the circumference of the
   circle. Give your answer in terms of π.

   7cm

   ........................cm

6. Georgina has 1 metre of pink ribbon

   She wants to wrap it around a tree trunk with diameter 32 centimetres.

   Will she be able to wrap the ribbon around the tree trunk?
   Explain your answer.

7. A circular plate has circumference of 37.7cm
   Calculate the diameter of the plate.

   ........................cm

8. A circular pond has radius of 6m.
   Calculate the circumference of the pond.

   Give your answer in terms of π.

   ........................m
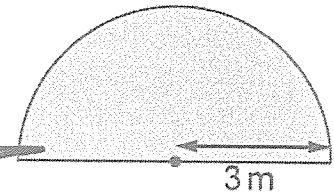
9. The circumference of a circle measures 19.5cm
   Work out the length of the diameter of the circle.

   ........................cm

10. If the ratio of the radii of two circles is 1 : 3,
    what is the ratio of their i circumferences and ii
    areas?  Explain how you worked out your answers.

11. The diagram shows a semicircle.
    Hanaa says:

    I think the perimeter
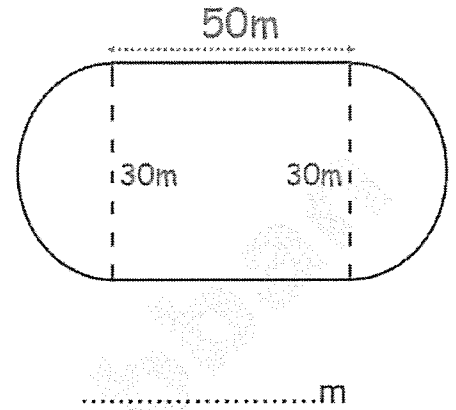    of the semicircle is
    6π + 6 cm.

    3 m

    Is she correct? Show working to support your answer.
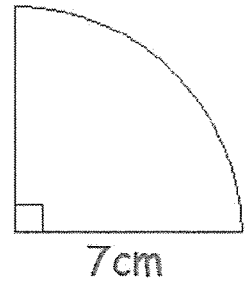
12. A primary school has a running track

It has two straights of 50 metres.

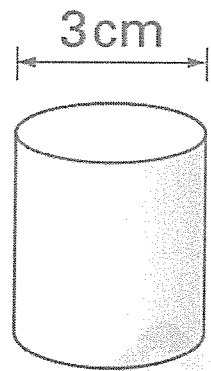Also there are two 'bends' that are semicircles with diameter 30 metres.

Work out the distance around the running track.

50m

30m    30m

......................m

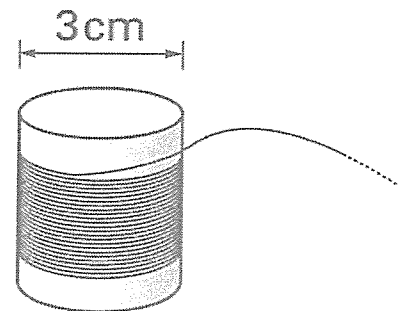13. Work out the perimeter of a quarter-circle with radius 7cm.

7cm

14. (a) The cross-section of a cylindrical cotton reel is a circle.

The **diameter** of this circle is **3 cm**. What

is the **circumference** of this circle?

3 cm

(b) **91 metres** of cotton goes round the cotton reel.

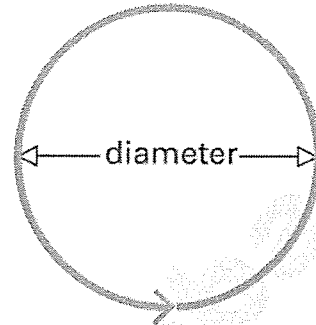About how many times does the cotton go round the reel?

Show your working, and give your answer to the **nearest ten**.
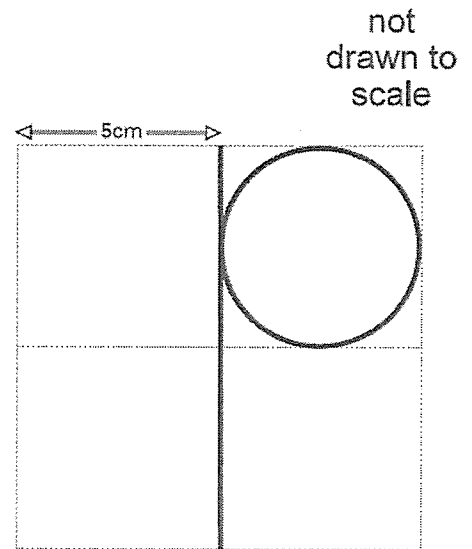
3 cm

15. Paul uses the rule:

The distance all the way round a circle is the diameter multiplied by 3.14

He makes a letter P from wire.



He puts it on a square grid. What is the total length of the wire?

not
drawn to
scale



. . . . . . . . . . . . . . cm