

Vedgyan Tutorial

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IGCSE 9th - Test-3

Chapter 7: Perimeter, Area and Volume

Subject: MATHEMATICS

Date:

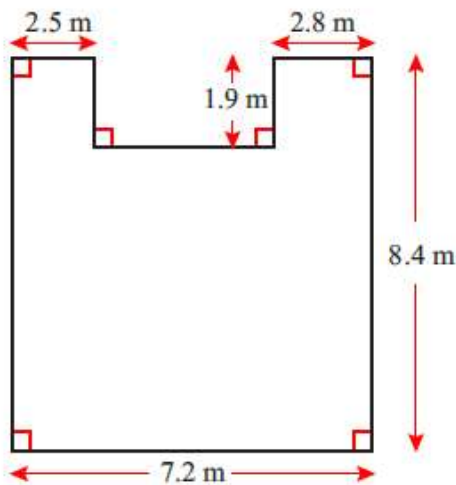
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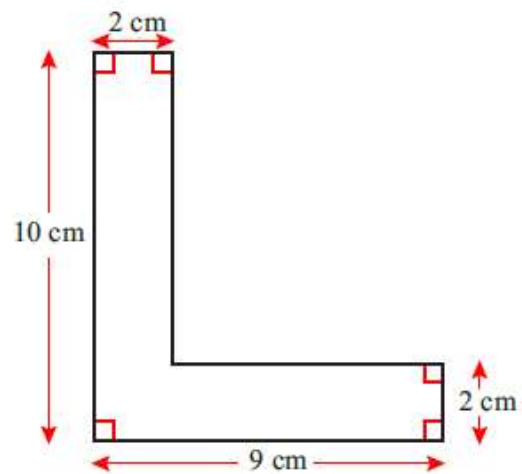
- Perimeter • Area • Irrational number • Sector • Arc • Semi-circle • Solid • Net • Vertices • Face
• Surface area • Volume • Apex • Slant height

Q1. Calculate the perimeter of each of the following shapes.

a.

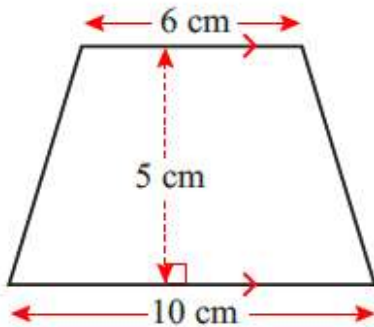


b.

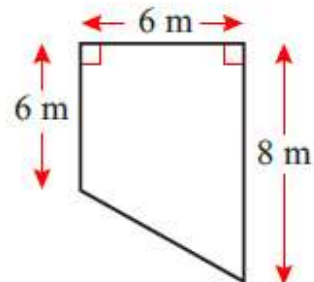


Q2. Calculate the area of each of the following shapes.

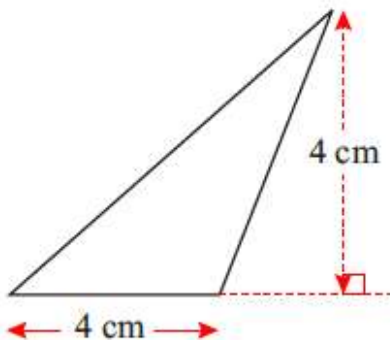
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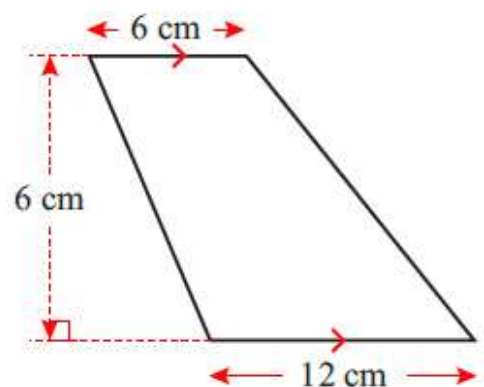
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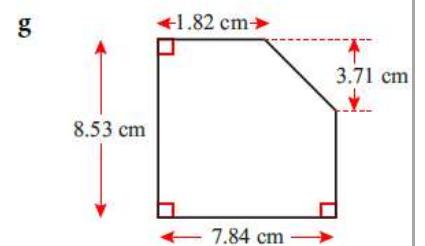
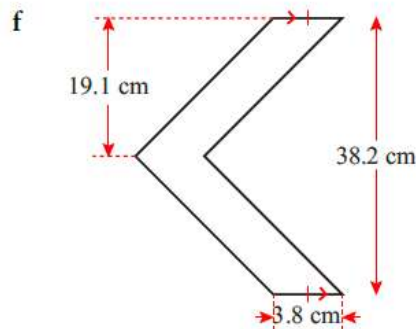
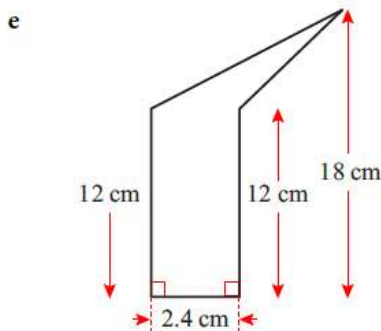
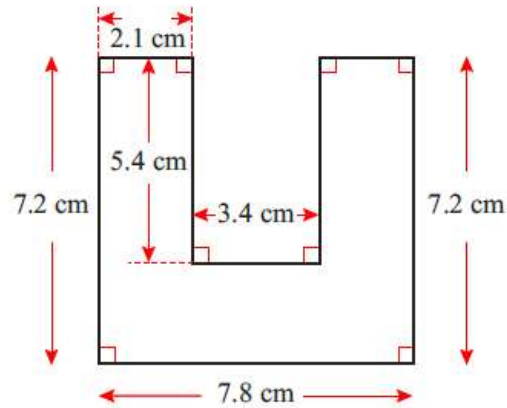
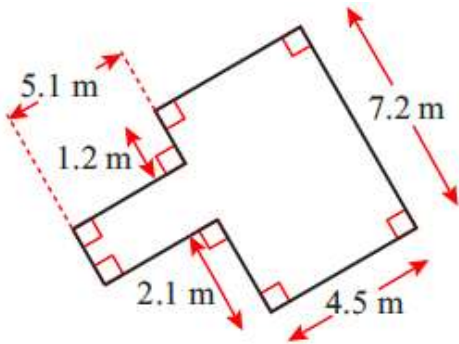
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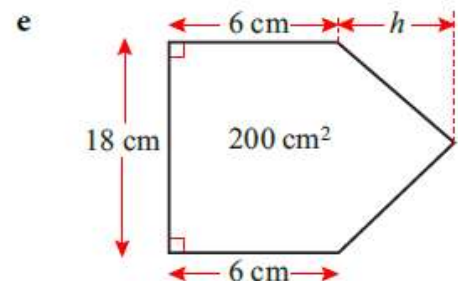
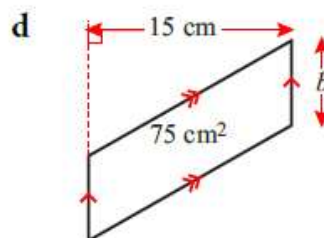
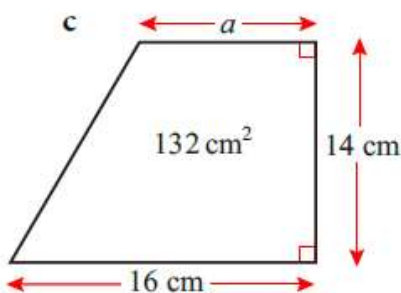
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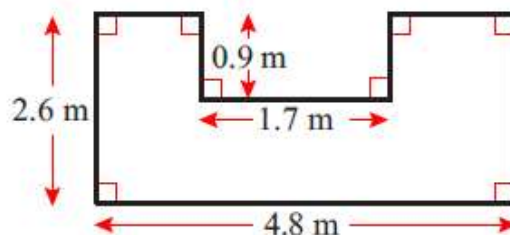
Q3. The following shapes can all be divided into simpler shapes. In each case find the total area.



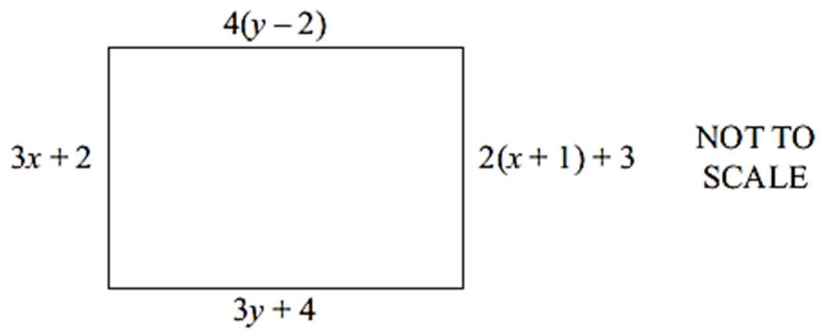
Q4. For each of the following shapes you are given the area and one other measurement. Find the unknown length in each case.



How many 20 cm by 30 cm rectangular tiles would you need to tile the outdoor area shown below?

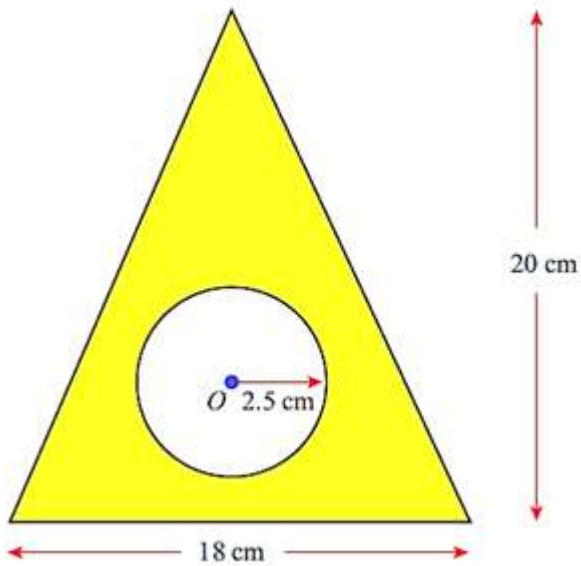


Sanjay has a square mirror measuring 10 cm by 10 cm. Silvie has a square mirror which covers twice the area of Sanjay's mirror. Determine the dimensions of Silvie's mirror correct to 2 decimal places.

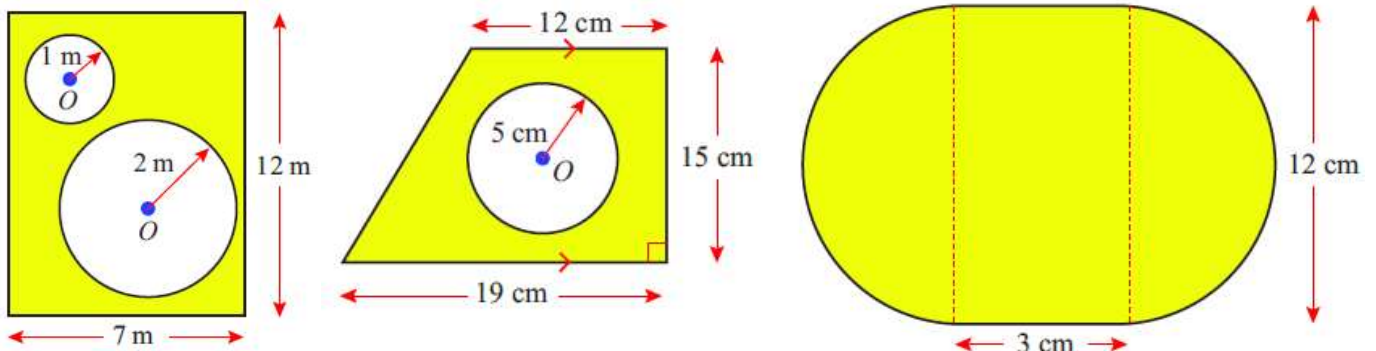


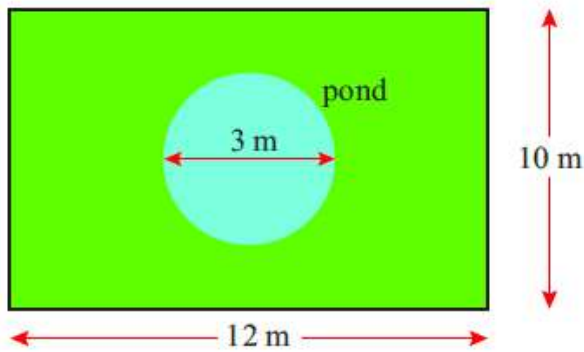
Find the area and perimeter of the rectangle shown in the diagram above.

Calculate the area of the shaded region in the diagram.



Q9. Calculate the area of the shaded region in each case.





The diagram shows a plan for a rectangular garden with a circular pond. The part of the garden not covered by the pond is to be covered by grass. One bag of grass seed covers five square metres of lawn. Calculate the number of bags of seed needed for the work to be done.

Q11. Sixteen identical circles are to be cut from a square sheet of fabric whose sides are 0.4 m long. Find the area of the leftover fabric (to 2dp) if the circles are made as large as possible.

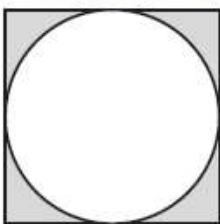
Q12.

Anna and her friend usually order a large pizza to share. The large pizza has a diameter of 24 cm. This week they want to eat different things on their pizzas, so they decide to order two small pizzas. The small pizza has a diameter of 12 cm. They want to know if there is the same amount of pizza in two small pizzas as in one large. Work out the answer.

Q For each of the following, give the answer as a multiple of π .

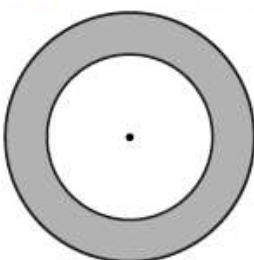
- Calculate the circumference of a circle of diameter 10 cm.
- A circle has a radius of 7 mm. What is its circumference?
- What is the area of a circle of diameter 1.9 cm?
- The radius of a semi-circle is 3 cm. What is the area of the semi-circle?

Q A circle of circumference 12π cm is precision cut from a metal square as shown.

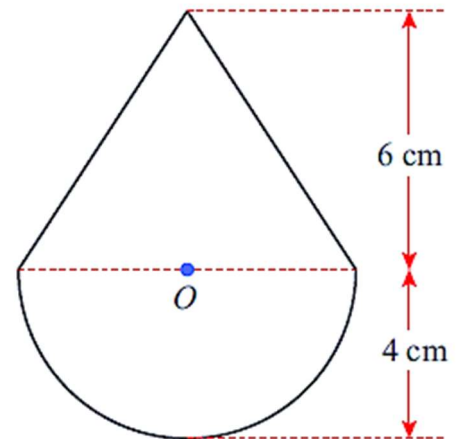
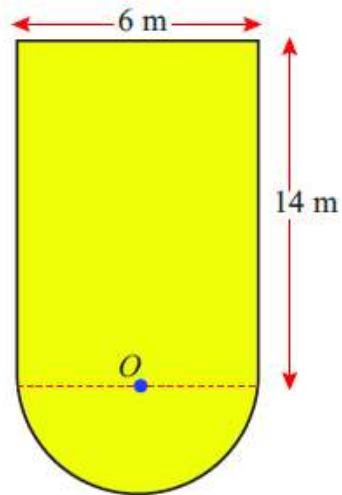
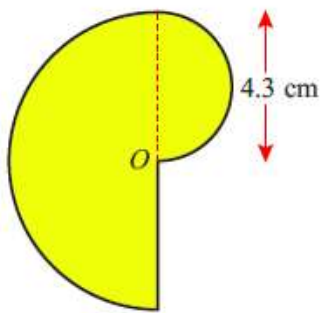


- What is the length of each side of the square?
- What area of metal is left once the circle has been cut from it? Give your answer in terms of π .

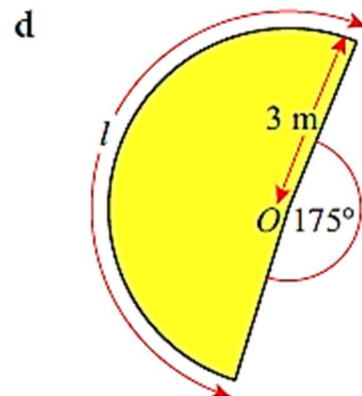
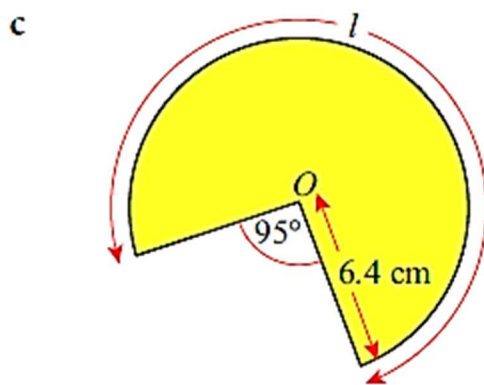
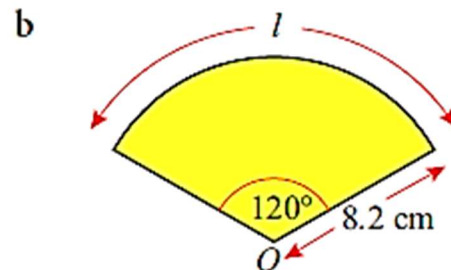
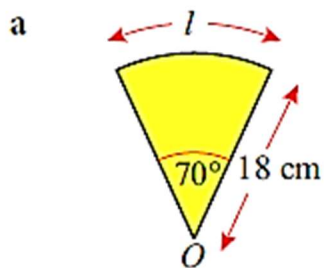
Q The diagram shows two concentric circles. The inner circle has a circumference of 14π mm. The outer circle has a radius of 9 mm. Determine the exact area of the shaded portion.



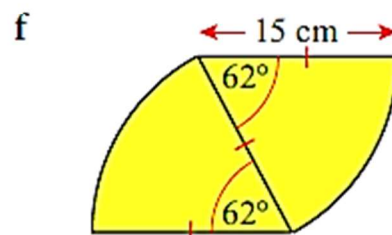
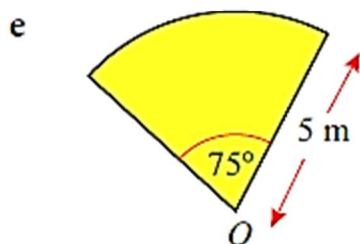
Q16. Find the area and perimeter of the given shapes. Give your answer to 3 significant figures.



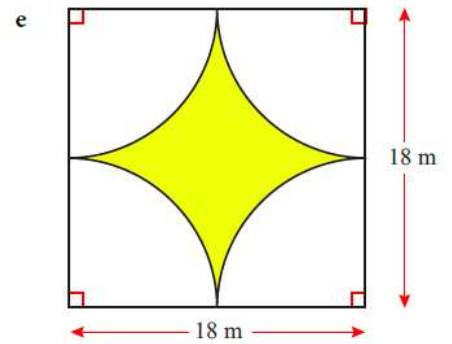
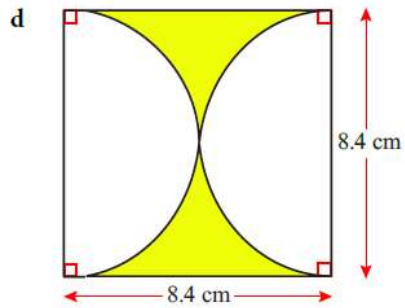
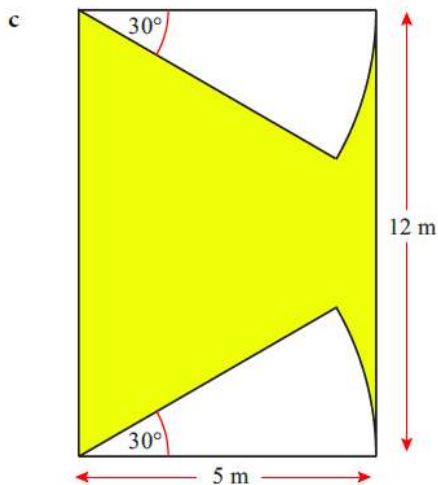
Q17: Find the area of the coloured region and find the arc length l in each of the following.



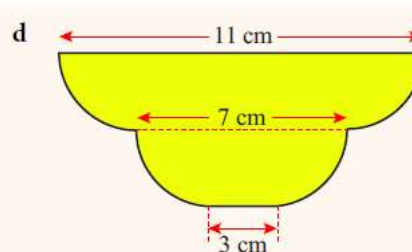
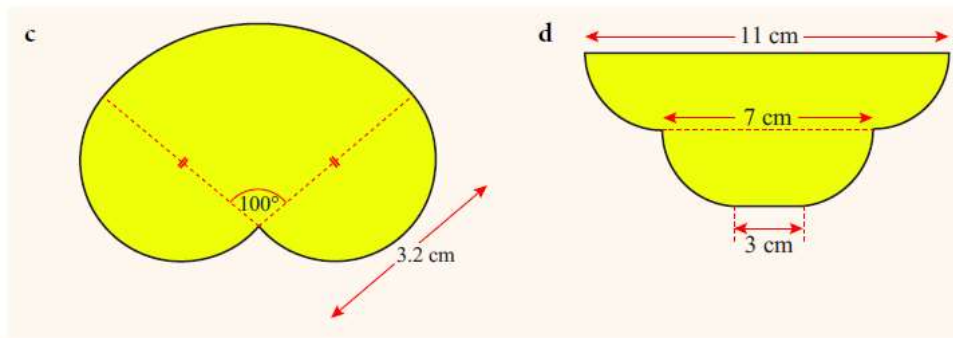
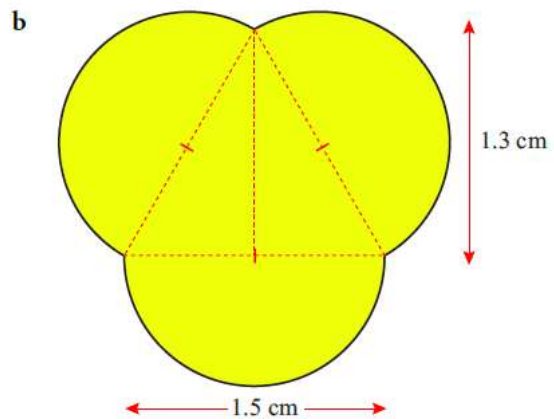
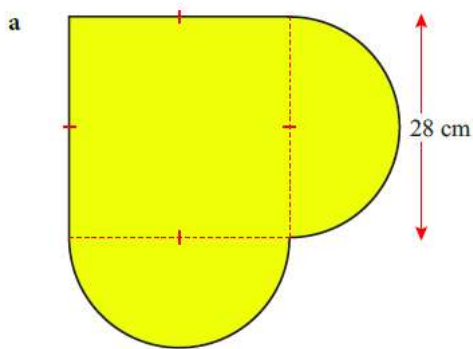
Find the area and perimeter of the following:



Q18. For each of the following find the area and perimeter of the coloured region.



Q19. Each of the following shapes can be split into simpler shapes. In each case find the perimeter and area.



----- End of Test -----

Next to be added - Three-dimensional objects