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Area & Volume (Q 1, Paper 2)

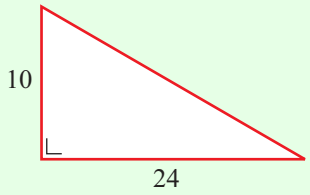
Lesson No. 1: Area of Regular Flat Shapes

2007

1 (a) The right-angled triangle shown in the diagram has sides of length 10 cm and 24 cm.

(i) Find the length of the third side.

(ii) Find the length of the perimeter of the triangle.

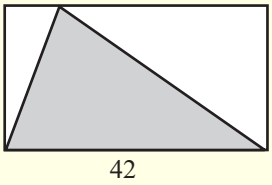


2006

1 (a) The diagram shows a rectangle of length 42 cm. The area of the rectangle is 966 cm^2.

(i) Find the height of the rectangle.

(ii) Find the area of the shaded triangle.

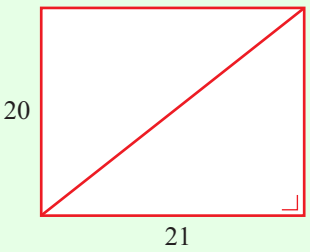


2005

1 (a) A rectangle has length 21 cm and width 20 cm.

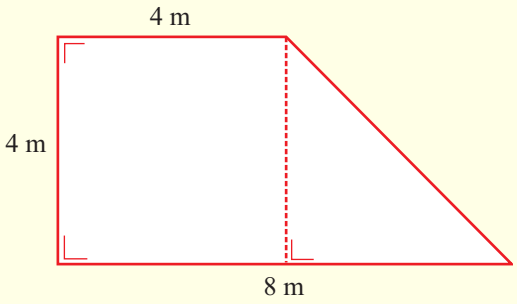
(i) Find the area of the rectangle.

(ii) Find the length of the diagonal.



2004

1 (a) Calculate the area of the figure in the diagram.



2003

1 (a) A right-angled triangle has sides of length 8 cm, 15 cm and 17 cm. Find its area.

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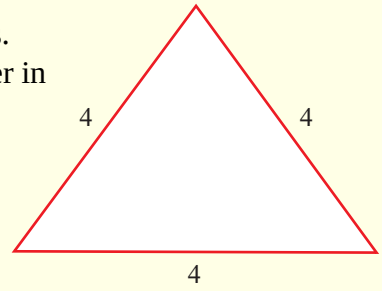
2002

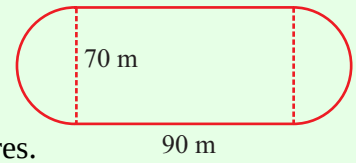
1 (a) Each side of an equilateral triangle measures 4 units.
Calculate the area of the triangle, giving your answer in surd form.

Note: Area of a triangle $= \frac{1}{2}ab\sin C$.



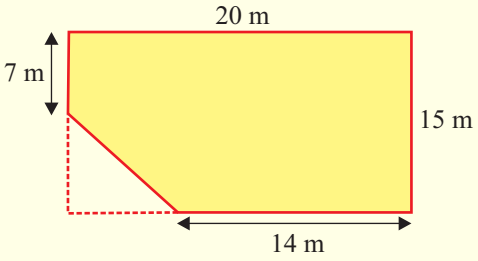
2001

1 (a) A running track is made up of two straight parts and two semicircular parts as shown in the diagram.
The length of each of the straight parts is 90 metres.
The diameter of each of the semicircular parts is 70 metres.
Calculate the length of the track correct to the nearest metre.



2000

1 (a) Calculate the area of the shaded region in the diagram.



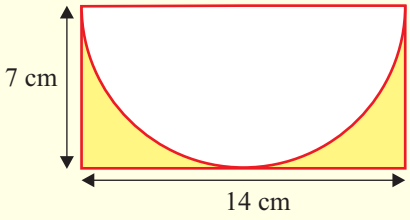
1999

1 (a) The area of a square is 36 cm^2.
Find the length of a side of the square.

1998

1 (a) A rectangular piece of metal measures 7 cm by 14 cm.
A semi-circular section with radius of length 7 cm is removed.
Calculate the area of the remaining piece of metal.

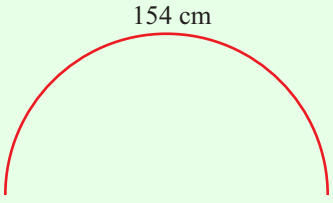
Take $\pi = \frac{22}{7}$.



1996

1 (a) A piece of wire of length 154 cm is in the shape of a semicircle.
Find the radius length of the semicircle.

Take $\pi = \frac{22}{7}$.



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ANSWERS

2007 1 (a) (i) 26 cm (ii) 60 cm
2006 1 (a) (i) 23 cm (ii) 483 cm^2
2005 1 (a) (i) 420 cm^2 (ii) 29 cm
2004 1 (a) 24 m^2
2003 1 (a) 60 cm^2
2002 1 (a) $4\sqrt{3}$ $units^2$
2001 1 (a) 400 m
2000 1 (a) 276 m^2
1999 1 (a) 6 cm
1998 1 (a) 21 cm^2
1996 1 (a) 49 cm