



EXAM PAPERS PRACTICE

2D Perimeters & Areas

Question Paper

Question 1

The base of a triangle is 9 cm correct to the nearest cm.
The area of this triangle is 40 cm^2 correct to the nearest 5 cm^2 .

Calculate the upper bound for the perpendicular height of this triangle.

[3]

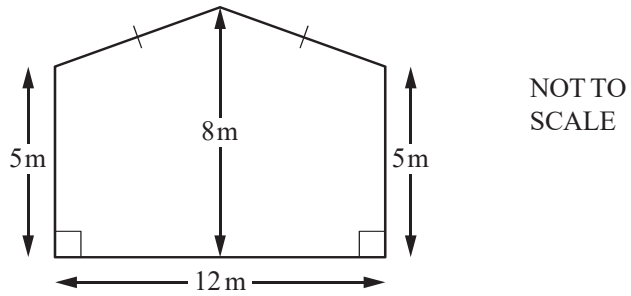
Question 2

The scale on a map is 1 : 20 000.
The area of a lake on the map is 1.6 square centimetres.

Calculate the actual area of the lake.
Give your answer in square metres.

[3]

Question 3



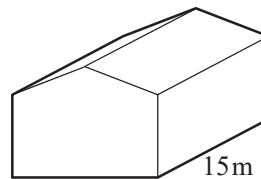
The diagram shows the front face of a barn.
The width of the barn is 12 m.
The height of the barn is 8 m.
The sides of the barn are both of height 5 m.

(a) Work out the area of the front face of the barn.

[3]

(b) The length of the barn is 15 m.

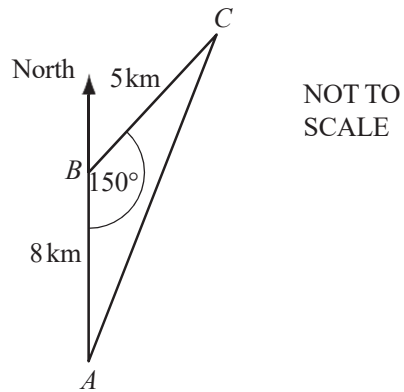
Work out the volume of the barn.



NOT TO SCALE

[1]

Question 4

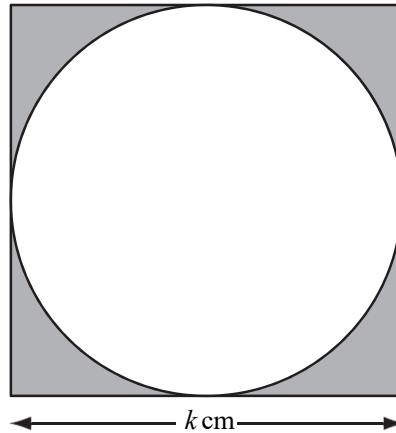


A helicopter flies 8 km due north from A to B . It then flies 5 km from B to C and returns to A . Angle $ABC = 150^\circ$.

(a) Calculate the area of triangle ABC . [2]

(b) Find the bearing of B from C . [2]

Question 5



The diagram shows a square of side k cm.

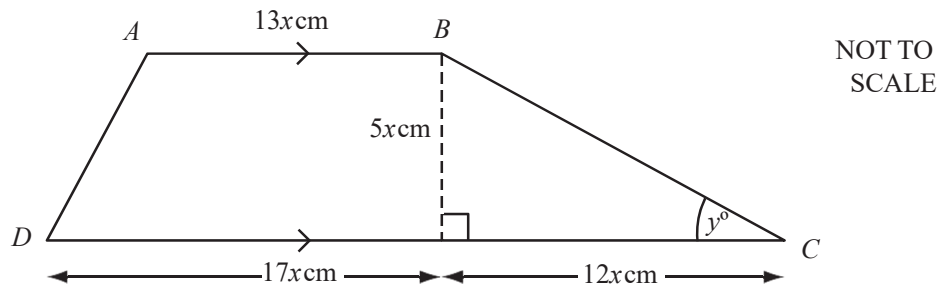
The circle inside the square touches all four sides of the square.

(a) The shaded area is A cm².

Show that $4A = 4k^2 - \pi k^2$. [2]

(b) Make k the subject of the formula $4A = 4k^2 - \pi k^2$. [3]

Question 6



$ABCD$ is a trapezium.

(a) Find the area of the trapezium in terms of x and simplify your answer. [2]

(b) Angle $BCD = y^\circ$. Calculate the value of y . [2]

Question 7

In triangle ABC , $AB = 6$ cm, $AC = 8$ cm and $BC = 12$ cm. Angle $ACB = 26.4^\circ$.
Calculate the area of the triangle ABC .

[2]

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