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## MATHS

## BOOKS - NAND LAL PUBLICATION

## HERON'S FORMULA

Exercise 12.1

1. A traffic signal board, indicating ' SCHOOL

AHEAD', is an equilateral triangle with side 'a'.

Find the area of the signal board, using

Heron's formula. If its perimeter is 180 cm , what will be the area of the signal board?

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2. Find the area of triangle two sides of which are 18 cm and 10 cm and the perimeter is 42 cm.

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3. Sides of a triangle are in the ratio of $12: 17$ :

25 and its perimeter is 540 cm . Find its area.

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4. An isosceles triangle has perimeter 30 cm and each of equal sides is 12 cm . Area of the triangle is :

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1. A park, in the shape of a quadrilateral ABCD, has $\angle C=90^{\circ}$,
$A B=9 m, B C=12 m, C D=5 m \quad$ and
$A D=8 m$. How much area does it occupy?

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2. Find the area of a quadrilateral $A B C D$ in which $A B=3 \mathrm{~cm}, \mathrm{BC}=4 \mathrm{~cm}, C D=4 \mathrm{~cm}, \mathrm{DA}=5$ cm and $\mathrm{AC}=5 \mathrm{~cm}$.

## 3. Radha made a picture of an aeroplane with

 coloured paper as shown in Fig.

Find the total area of the paper used.
4. A triangle and a parallelogram have the same base and the same area. If the sides of the triangle are $26 \mathrm{~cm}, 28 \mathrm{~cm}$ and 30 cm , and the parallelogram stands on the base 28 cm , find the height of the parallelogram.

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5. A rhombus shaped field has green grass for 18 cows to graze. If each side of the rhombus
is 30 m and its longer diagonal is 48 m , grass of how much area of grass field will each cow be getting ?

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6. A floral design on a floor is made up of 16
tiles which are triangular, the sides of the triangle being $9 \mathrm{~cm}, 28 \mathrm{~cm}$ and 35 cm (See figure). Find the cost of polishing the tiles at
the rate of 50 p per $\mathrm{cm}^{2}$.


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7. A field is in the shape of a trapezium whose parallel sides are 25 m and 10 m . The non-
parallel sides are 14 m and 13 m . Find the area of the field.

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