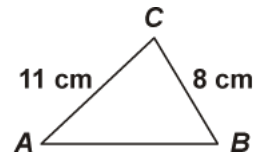
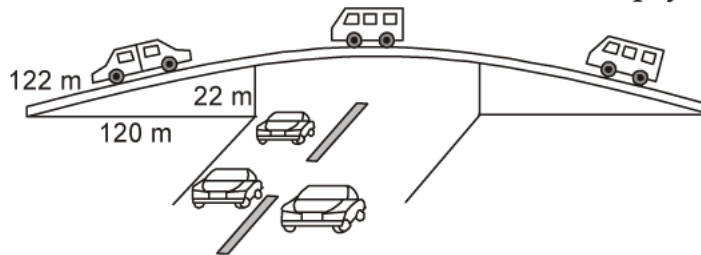


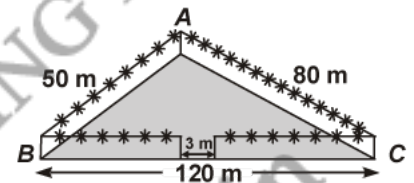
- Q1.** Find the area of a triangle, two sides of which are 8 cm and 11 cm and the perimeter is 32 cm (see figure).



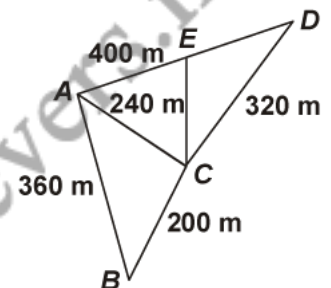
- Q2.** The sides of a triangular plot are in the ratio of 3 : 5 : 7 and its perimeter is 300 m. Find its area.
- Q3.** The triangular side walls of a flyover have been used for advertisements. The sides of the walls are 122 m, 22 m and 120 m (see figure). The advertisements yield an earning of Rs. 5000 per m² per year. A company hired one of its wall for 3 months. How much rent did it pay?



- Q4.** A triangular park ABC has sides 120 m, 80 m and 50 m (see figure). A gardener *Dhaniam* has to put a fence all around it and also plant grass inside. How much area does she need to plant? Find the cost of fencing it with barbed wire at the rate of Rs. 20 per metre leaving a space 3 m wide for a gate on one side.



- Q5.** Kamala has a triangular field with sides 240 m, 200 m, 360 m where she grew wheat. In another triangular field with sides 240 m, 320 m and 400 m adjacent to the previous field, she wanted to grow potatoes and onions (see figure). She divided the field in two parts by joining the mid-point of the longest side to the opposite vertex and grew potatoes in one part and onions in the other part. How much area (in hectares) has been used for wheat, potatoes and onions? (1 hectare = 10000 m²)



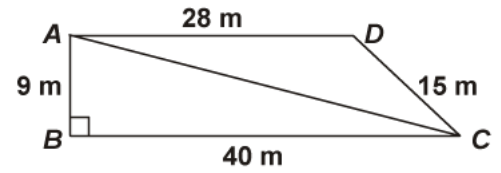
- Q6.** A traffic signal board, indicating 'School Ahead', is an equilateral triangle with side 'a'. Find the area of the signalboard, using Heron's formula. If its perimeter is 180 cm, what will be the area of the signal board?
- Q7.** Find the area of a triangle two sides of which are 18 cm and 10 cm and the perimeter is 42 m.
- Q8.** There is a slide in a park. One of its side walls has been painted in some colour with a message 'Keep the Park Green and Clean' (see figure), If the sides of the wall are 15 m, 11 m and 6 m, find the area painted in colour.



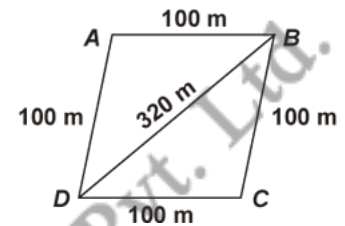
- Q9.** An isosceles triangle has perimeter 30 cm and each of the equal sides is 12 cm. Find the area of the triangle.
- Q10.** Sides of a triangle are in the ratio of 12 : 17 : 25 and its perimeter is 540 cm. Find its area.

- Q11.** A triangle and a parallelogram have the same base and the same area. If the sides of the triangle are 26 cm, 28 cm and 30 cm, and the parallelogram stands on the base 28 cm, find the height of the parallelogram.
- Q12.** 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, how much area of grass field will each cow be getting?
- Q13.** 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.

- Q14.** Students of a school staged a rally for cleanliness campaign. They walked through the lanes in two groups. One group walked through the lanes AB , BC and CA ; while the other through AC , CD and DA (see figure). Then they cleaned the area enclosed within their lanes. If $AB = 9$ m, $BC = 40$ m, $CD = 15$ m, $DA = 28$ m and $\angle B = 90^\circ$, which group cleaned more area and by how much? Find the total area cleaned by the students (neglecting the width of the lanes).



- Q15.** Sanya has a piece of land which is in the shape of a rhombus (see figure). She wants her one daughter and one son to work on the land and produce different crops. She divided the land in two equal parts. If the perimeter of the land is 400 m and one of the diagonals is 160 m, how much area each of them will get for their crops?



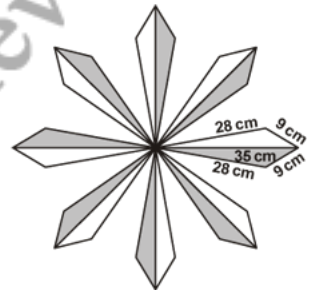
- Q16.** A park, in the shape of a quadrilateral $ABCD$, has $\angle C = 90^\circ$, $AB = 9$ m, $BC = 12$ m, $CD = 5$ m and $AD = 8$ m. How much area does it occupy?

- Q17.** Find the area of a quadrilateral $ABCD$ in which $AB = 3$ cm, $BC = 4$ cm, $CD = 4$ cm, $DA = 5$ cm and $AC = 5$ cm.

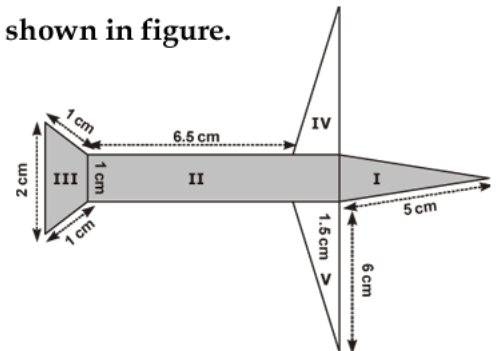
- Q18.** A kite in the shape of square with a diagonal 32 cm and an isosceles triangle of base 8 cm and sides 6 cm each is to be made of three different shades as show in figure. How much paper of each shade has been used in it.



- Q19.** A floral design on a floor is made up of 16 tiles which are triangular, the sides of the triangle being 9 cm, 28 cm and 35 cm (see figure). Find the cost of polishing the tiles at the rate of 50 p per cm^2 .



- Q20.** Radha made a picture of an aeroplane with coloured paper as shown in figure. Find the total area of the paper used.



- S1.** $8\sqrt{30}$ cm².
- S2.** $1500\sqrt{3}$ m².
- S3.** Rs. 16,50,000.
- S4.** 4940.
- S5.** Area for growing wheat = 38400 m² = 3.84 hectare.
Area for growing potatoes = Area for growing onions
= 1.92 hectare.
- S6.** $\frac{\sqrt{3}}{4} a^2$, $900\sqrt{3}$ cm².
- S7.** $21\sqrt{11}$ cm².
- S8.** $20\sqrt{2}$ m².
- S9.** $9\sqrt{15}$ cm².
- S10.** 9000 cm².
- S11.** 12 cm.
- S12.** 48 m².
- S13.** 196 m².
- S14.** First group cleaned 180 m² which is (180 - 126) m², i.e., 54 m² more than the area cleaned by the second group.
Total area cleaned by all the students = 306 m².
- S15.** 4800 m².
- S16.** 65.5 m² (approx.)
- S17.** 15.2 cm² (approx.)
- S18.** Area of shade I = Area of shade II = 256 cm² and area of shade III = 17.92 cm².
- S19.** Rs. 705.60
- S20.** 19.4 cm² (approx.)