HERON'S FORMULA

Q1. The length of a rectangular plot of land is twice its breadth. If the perimeter of the plot be 180 metres, then find its area.

Q2. The lengths of sides of a triangle are in the ratio 3:4:5 and its perimeter is 120cm, find its area.

Q3. Find the area of a quadrilateral ABCD in which AB = 8cm, BC = 6cm, CD = 8cm, DA = 10cm and AC = 10cm.

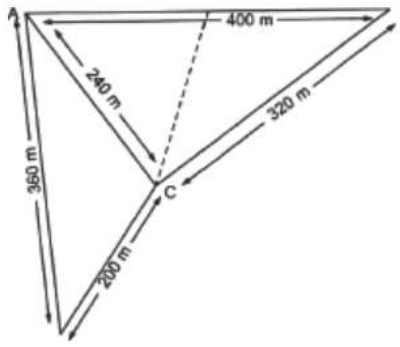
Q4. The perimeter of a right triangle is 30cm. If the hypotenuse is 13cm, then what are the two sides?

Q5. If the area of a hexagon is $24\sqrt{3}$ cm^2. Find its perimeter.

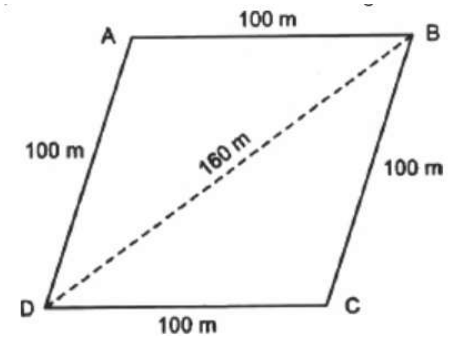
Q6. A triangular park has sides 120m, 80m and 50m. A gardener has to put a fence all around it and also plant trees outside. How much area does he need to plant? Find the cost of fencing it with barbed wire at the rate of Rs20 per metre, leaving a space of 3m wide for a gate on one side.

Q7. Find the area of an isosceles triangle with two equal sides as 5cm each and the third side 8cm.

Q8. A farmer has a triangular field with sides 240m, 200m and 360m, where he grew wheat. In another triangular field with sides 240m, 320m and 400m adjacent to the previous field, he wanted to grow potatoes and onions (see figure). He divided the field into 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?



Q8. Soham has a piece of land which is in the shape of a rhombus as shown. She wants her daughter and 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 400m and one of the diagonal is 160m, how much area each of them will get for their crops?



Q10. Find the height of a trapezium in which parallel sides are 25cm, 77cm and non parallel sides are 26cm and 60cm. Given the area of the trapezium is 1644 cm^2.