

Mathematics

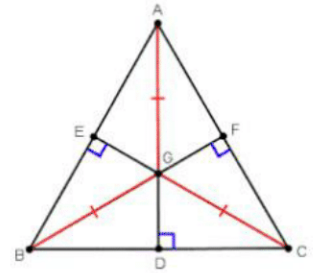
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 (Chapter – 7)(Triangles)
 (Class – 9)
 Exercise 7.5 (Optional)*

Question 1:

ABC is a triangle. Locate a point in the interior of ΔABC which is equidistant from all the vertices of ΔABC .

Answer 1:

Draw perpendicular bisectors of AB, BC and AC, which intersects each other at G. Point G is equidistant from the three vertices of ΔABC .

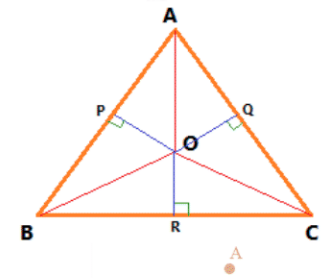


Question 2:

In a triangle locate a point in its interior which is equidistant from all the sides of the triangle.

Answer 2:

Draw the bisectors of $\angle A$, $\angle B$ and $\angle C$, which intersect each other at O. Point O is equidistant from the three sides of ΔABC i.e. $OP = OQ = OR$.



Question 3:

In a huge park, people are concentrated at three points (see Figure):

A: where there are different slides and swings for children,

B: near which a man-made lake is situated,

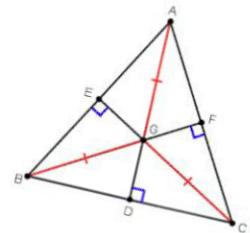
C: which is near to a large parking and exit.

Where should an ice-cream parlour be set up so that maximum number of persons can approach it?

Answer 3:

Join A to B, B to C and C to A.

Draw perpendicular bisectors of AB, BC and AC, which intersects each other at G. Point G is equidistant from the three vertices of ΔABC . Hence, at G, ice-cream parlour should be set up so that maximum number of persons can approach it.

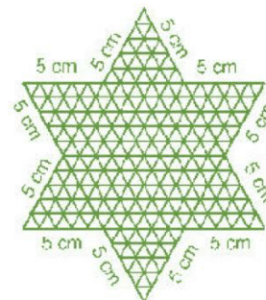
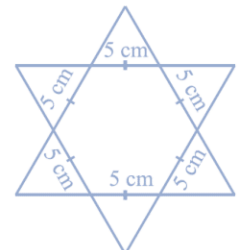
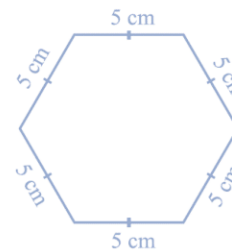
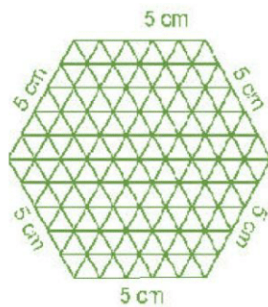


Question 4:

Complete the hexagonal and star shaped Rangolies [see Figure (i) and (ii)] by filling them with as many equilateral triangles of side 1 cm as you can. Count the number of triangles in each case. Which has more triangles?

Answer 4:

The number of triangles in hexagonal Rangolies = 150



The number of triangles in star shaped Rangolies = 298

Star shaped Rangolies has more number of triangles.