

Incentives given by the A.P. Government to the students of Government School: 2 pair of Uniform, Text Books and Mid day meal

Mid day meal details	Rice	Pulses	Vegetables	Oil	Others (Eggs, Banana etc..)
Primary Stage	100 gm	30 gm	75 gm	5 gm	Twice a week
Upper Primary Stage	150 gm	30 gm	75 gm	7.5 gm	Twice a week

School Related complaints Toll Free Number: 1800 4253 525 | Teacher grievances Toll Free Number: 040-23231972,

Child Rights Toll Free Number: 1098

040-23231194



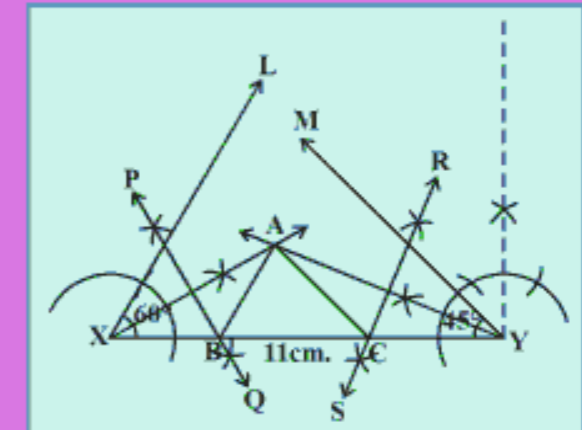
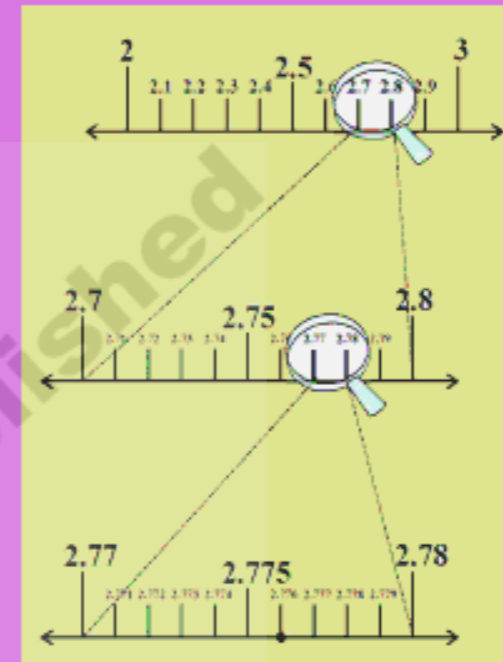
The Government of Andhra Pradesh
Hyderabad

MATHEMATICS

CLASS IX

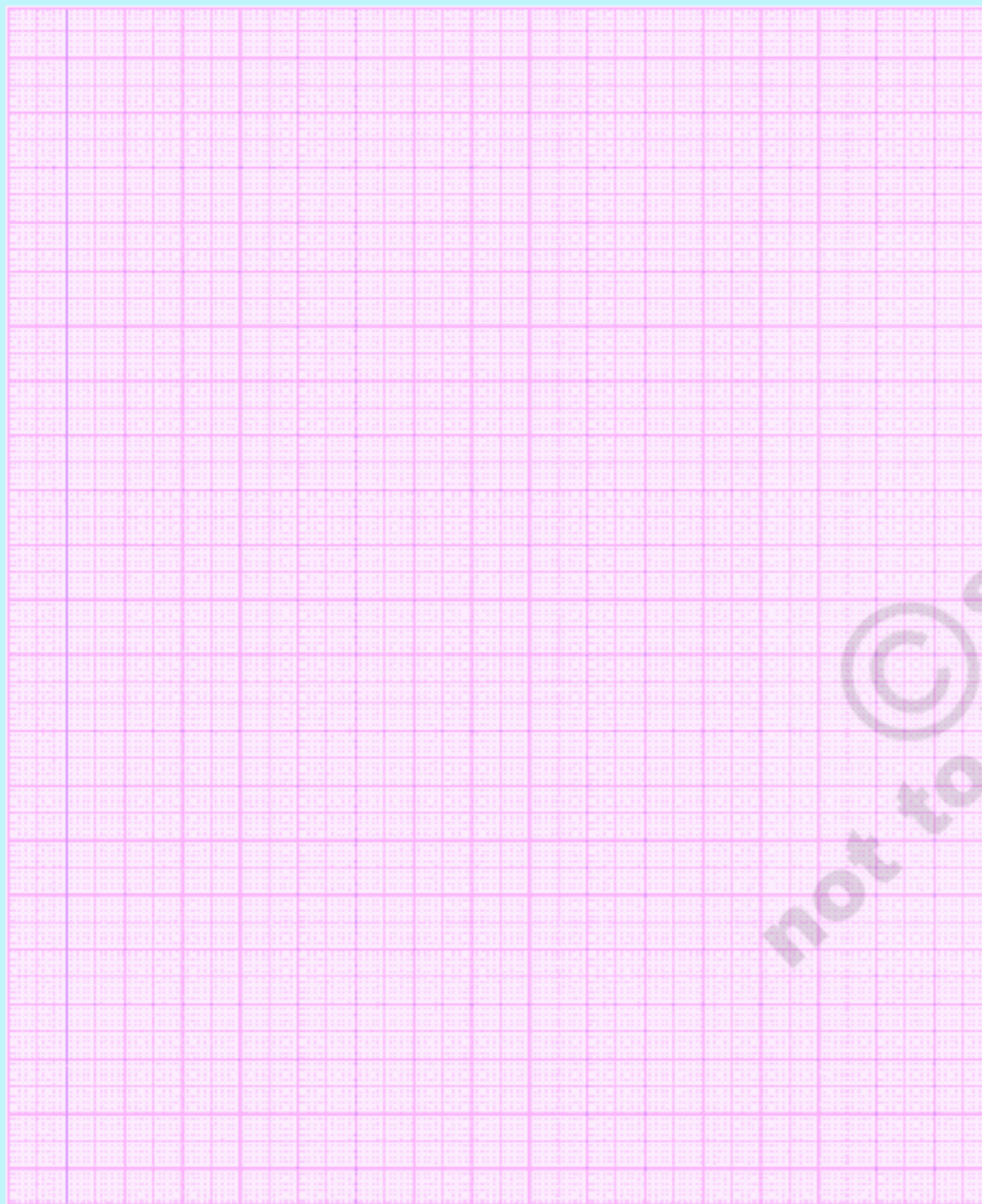


CLASS IX



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Wonderful Circle

Constructing the Nine-Point Circle of a triangle

The circle which passes through the feet of the perpendiculars, dropped from the vertices of any triangle on the sides opposite them, passes also through the midpoints of these sides as well as through the midpoints of the segments which join the vertices to the point of intersection of the perpendiculars.

Do you know all that? This circle is called the Nine-Point Circle. This Nine-Point circle result was known to Leonard Euler 1765, but was rediscovered by German Mathematician Karl Feuerbach in 1822.

Constructing the nine-point circle is a good test of your construction skills and your ability.

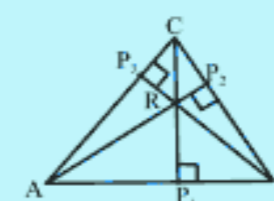
Just follow the instructions and try this

Step 1



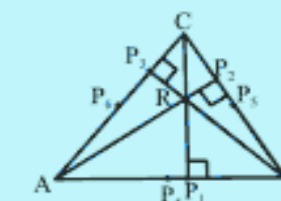
Construct a large scalene triangle on a sheet of white paper. Label it $\triangle ABC$

Step 2



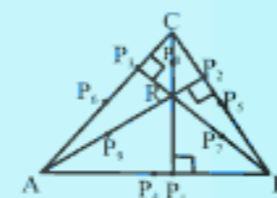
Construct the altitude to each side of the triangle and label the points of intersection with the sides P_1 , P_2 and P_3 . Name the orthocenter as R .

Step 3



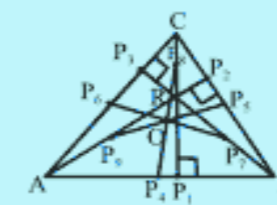
Construct the midpoint of each side of the triangle. Label the points P_4 , P_5 and P_6 so that P_4 is the midpoint of \overline{AB} and P_5 is the midpoint of \overline{BC} .

Step 4



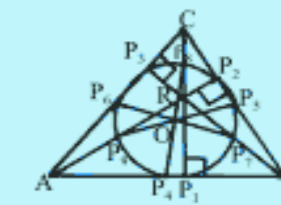
Construct the midpoints of \overline{BR} , \overline{CR} and \overline{AR} and label the points P_7 , P_8 and P_9 so that P_7 is the midpoint of \overline{BR} and P_8 is the midpoint of \overline{CR} .

Step 5



Construct the line segments connecting points P_1 to P_6 , P_2 to P_9 and P_3 to P_8 . They should all intersect in one point. Mark that point as 'O'.

Step 6



Construct a circle with radius OP_1 and center at point O . It should pass through all nine points: P_1 , P_2 , P_3 , P_4 , P_5 , P_6 , P_7 , P_8 , P_9 .

This is the wonderful circle. You might have observed that how "compass" play a major role in this Geometrical construction.