

Activities in Geometry

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HBCSE

- What is Geometry?
- What do we teach in geometry in school?
- What geometric constructions are there in the curriculum?

- A point moves so that it is always at a fixed distance d from a given point P . What is its locus?

- A point moves so that it is at a fixed distance d from a given straight line l . What is its locus?

- Perpendicular bisector

- A moving point remains at equal distance from two given parallel straight lines m and n ; what is its locus?

- A moving point remains at equal distance from two given intersecting straight lines l and m ; what is its locus?

- Two vertices, A and B, of the triangle ABC are marked for you. Angle C, opposite to the side AB, is also given. Construct triangle ABC.

- The triangle is not determined, since the point C can vary. What is the locus of the point C?

- Construct a ΔABC given the length two sides $BC = a$ and $AC = b$ and the length of the median (m_A) drawn from the vertex A to the side BC .

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- When AC , AB and AD (median) are given.

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- Construct a ΔABC given the length of BC , the length of the altitude (h_A) from A to BC and the length of the median from A to BC (m_A).

- Construct a ΔABC given the length of BC , the length of the altitude (h_A) from A to BC and angle A .

Reference

- Subramaniam, K. (2013). Pólya to the rescue: When you don't know the solution to a problem , *At Right Angles* , Vol. 2, No. 1, p. 60-63.