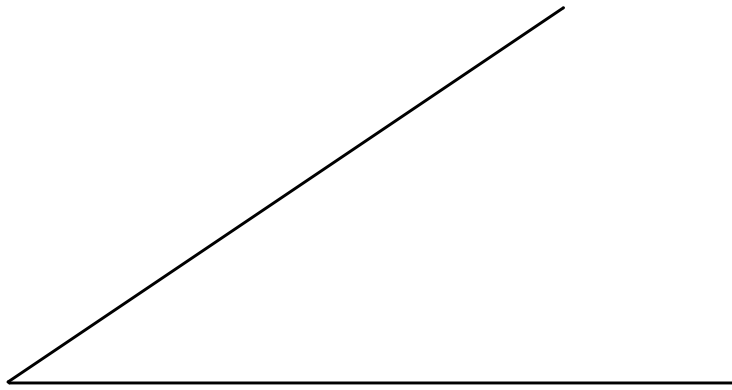


## LCHL Geometry Constructions

1. Bisector of a given angle, using only compass and straight edge.

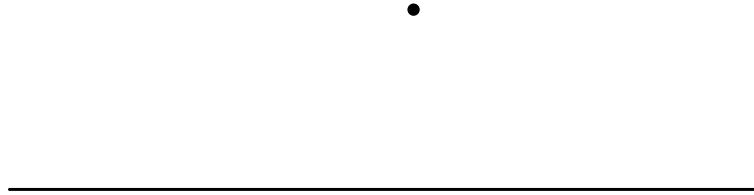


2. Perpendicular bisector of a segment, using only compass and straight edge.



## LCHL Geometry Constructions

3. Line perpendicular to a given line  $l$ , passing through a given point not on  $l$ .

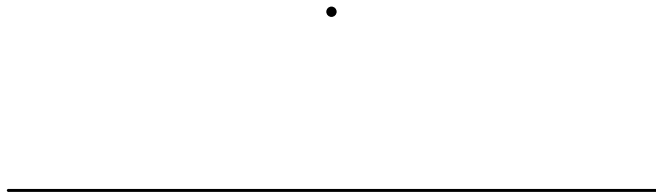


4. Line perpendicular to a given line  $l$ , passing through a given point on  $l$ .



## LCHL Geometry Constructions

5. Line parallel to given line, through given point.



6. Division of a segment into 2, 3 equal segments, without measuring it.

Divide this line segment into 3 equal parts



## LCHL Geometry Constructions

7. Division of a segment into any number of equal segments, without measuring it.

Divide this line into 4 equal parts



8. Line segment of given length on a given ray.

Construct a line segment of 6 cm



## LCHL Geometry Constructions

9. Angle of given number of degrees with a given ray as one arm.

Construct an angle of  $70^\circ$



10. Triangle, given lengths of three sides.

Construct a triangle with sides of 6 cm, 7 cm and 8 cm

## LCHL Geometry Constructions

11. Triangle, given SAS data.

Construct a triangle with sides of length 8 cm and 9 cm with an angle of  $35^\circ$  between them.

12. Triangle, given ASA data.

Construct a triangle with a side of 8 cm adjacent to angles of  $40^\circ$  and  $60^\circ$ .

## LCHL Geometry Constructions

13. Right-angled triangle, given the length of the hypotenuse and one other side.

Construct a right-angled triangle with a hypotenuse of 10 cm and another side of length 8 cm.

14. Right-angled triangle, given one side and one of the acute angles (several cases).

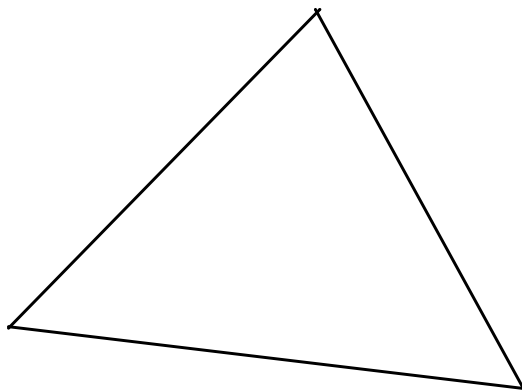
Construct a right-angled triangle with a side of 7 cm opposite to an angle of  $40^\circ$ .

## LCHL Geometry Constructions

15. Rectangle, given side lengths.

Construct a rectangle with sides of 10 cm and 12 cm

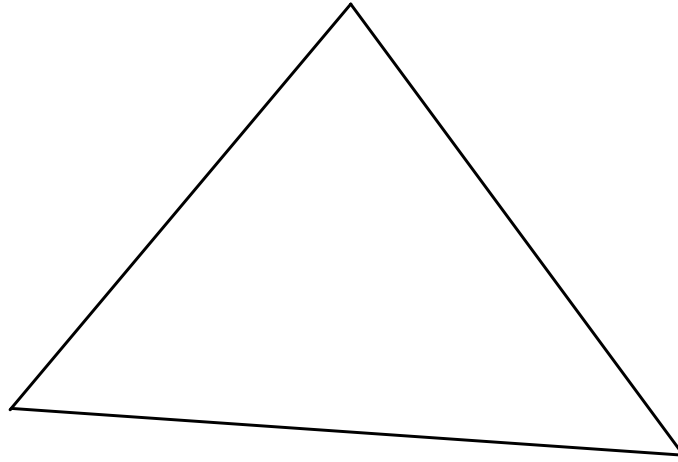
16. Circumcentre and circumcircle of a given triangle, using only straight-edge and compass.





## LCHL Geometry Constructions

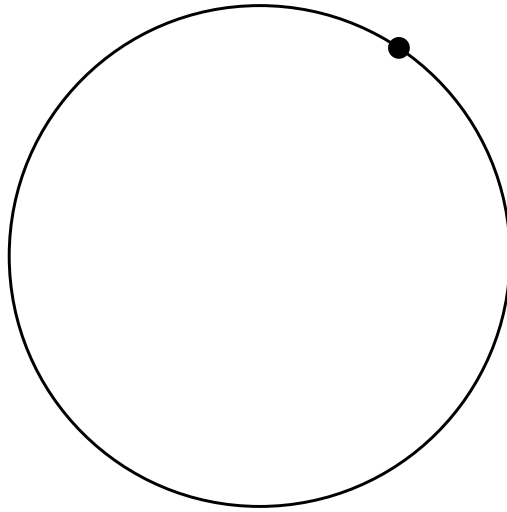
17. Incentre and incircle of a given triangle, using only straight-edge and compass.



18. Angle of  $60^\circ$ , without using a protractor or set square.

## LCHL Geometry Constructions

19. Tangent to a given circle at a given point on it.

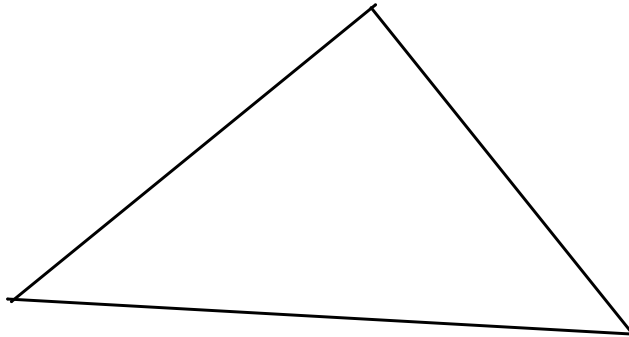


20. Parallelogram, given the length of the sides and the measure of the angles.

Construct a parallelogram with sides of 10 cm and 8 cm and an angle of  $85^\circ$ .

## LCHL Geometry Constructions

21. Centroid of a triangle.



22. Orthocentre of a triangle.

