

## Leaving Cert Higher & Ordinary Level Constructions:

### Higher & Ordinary:

1. Bisector of an angle, using only a compass and a straight edge.
2. Perpendicular bisector of a segment, using only a compass and a straight edge.
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  $l$ .
5. Line parallel to a given line, through a given point.
6. Division of a line segment into 2 or 3 equal parts, without measuring it.
7. Division of a line segment into  $n$  equal segments, without measurement.
8. Line segment of a given length on a given ray.
9. Angle of a given number of degrees with a given ray as one arm.
10. Triangle, given the length of three sides. (SSS)
11. Triangle, given two sides and the included angle. (SAS)
12. Triangle, given two angles and the common side. (ASA)
13. Right-angled triangle, given length of hypotenuse and one other side. (RHS)
14. Right-angled triangle, given one side and one of the acute angles.
15. Rectangle, given side lengths.
16. Circumcentre and circumcircle of a given triangle, using ruler and compass.
17. Incentre and incircle of a given triangle, using ruler and compass.
18. Angle of  $60^\circ$ , without using a protractor or set square.
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.
21. Centroid of a triangle.

### Higher Level Only:

22. Orthocentre of a triangle