Points fulfilling conditions.

6. To find the conditions that a point may lie in a given straight line.
7. To find the conditions that a point may lie in a given plane.
8. To find the condition that a straight line may pass through a given point.
9. To find the conditions that a straight line may be parallel to a given straight line.
10. To find the conditions that a straight line may lie in a given plane.
11. To find the conditions that a straight line may be parallel to a given plane.
12. To find the conditions that a straight line may be perpendicular to a given straight line.
13. To find the conditions that a straight line may be perpendicular to a given plane.
14. To find the conditions that a straight line may pass through a given point and have a given inclination.

Planes fulfilling conditions.

15. To find the conditions that a plane may pass through a given point.
16. To find the conditions that a plane may pass through two given points or contain a given straight line.
17. To find the conditions that a plane may be parallel to a given plane.
18. To find the conditions that a plane may be parallel to a given straight line.
19. To find the conditions that a plane may be perpendicular to a given straight line.
20. To find the conditions that a plane may be perpendicular to a given plane.
21. To find the conditions that a plane passing through a given point may have a given inclination

Principle of "constructing" or exhibiting plane figures in their true form:

22. By finding the true lengths of the sides and diagonals.
23. By "turning down" into the horizontal plane.

Combination of the above for the solution of the following problems: 24 to 43.

24. To determine a straight line of given inclination, lying in a given plane, also parallel to a given plane.
25. To draw a straight line through a given point perpendicular to a given plane.
26. To find a plane passing through three given points. Corollary. To find a plane passing through two intersecting straight lines.
27. To find a plane of given inclination containing a given straight line, also parallel to a given straight line.
28. To find a plane containing a given straight line, and perpendicular to a given plane.

Problems on intersections:

29. To ascertain whether two given lines intersect.
30. To find the intersection of two given planes.
31. To find the intersection of a straight line and a plane.

Problems on measurement:

32. To measure the angle contained by two intersecting straight lines.
33. To measure the angle of inclination of a straight line to a plane.
34. To measure the dihedral angle contained by two planes.
35. To measure the distance between two parallel straight lines.
36. To measure the distance between two parallel planes.

Problems relating to ground.

37. To find the plan of a road of given uniform inclination rising up the face of a hill.
38. To find the intersection of a straight line with ground given by its contours.
39. To find the intersection of a plane with ground given by its contours.
40. To determine a plane containing a given straight line and tangent to one hill.
41. To determine a plane containing a given point and tangent to two hills.
42. To determine the most commanding hill with reference to a given point.