Chapter 11

1. The perpendicular bisector of a line segment can be constructed using a:

   a) Compass only

   b) Ruler only

   c) Compass and protractor

   d) Compass and ruler

   Answer: d) Compass and ruler

2. In constructing an angle of 60 degrees, the steps involved are:

   a) Bisect an angle

   b) Draw an arc with a known radius

   c) Draw a line perpendicular to another line

   d) Draw a line parallel to another line

   Answer: b) Draw an arc with a known radius

3. The division of a line segment into four equal parts can be achieved by:

   a) Drawing an angle of 90 degrees

   b) Constructing an equilateral triangle

   c) Drawing an arc with a known radius

   d) Bisecting an angle

   Answer: b) Constructing an equilateral triangle

4. A line segment of length 7 cm can be constructed using:

   a) Compass only

   b) Ruler only

   c) Compass and protractor

   d) Compass and ruler

   Answer: d) Compass and ruler

5. To construct a line parallel to another line, we need:

   a) A compass

   b) A protractor

c) A ruler

d) A compass and ruler

Answer: d) A compass and ruler

6. To construct a triangle with given sides 4 cm, 5 cm, and 6 cm, we can use:

a) An equilateral triangle

b) An isosceles triangle

c) A right-angled triangle

d) None of the above

Answer: c) A right-angled triangle

7. To construct an angle of 120 degrees, we need:

a) A compass only

b) A protractor

c) A ruler

d) A compass and ruler

Answer: d) A compass and ruler

8. To bisect an angle, we use:

a) A compass only

b) A protractor

c) A ruler

d) A compass and ruler

Answer: d) A compass and ruler

9. To construct a line perpendicular to another line, we use:

a) A compass only

b) A protractor

c) A ruler

d) A compass and ruler

Answer: d) A compass and ruler

10. The construction of a line segment 2.5 times the length of another line segment can be done by:

a) Drawing an arc with a known radius

b) Bisecting an angle

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: a) Drawing an arc with a known radius

11. To construct an angle of 90 degrees, we need:

a) A compass only

b) A protractor

c) A ruler

d) A compass and ruler

Answer: d) A compass and ruler

12. In constructing a triangle, if we know the lengths of two sides and the included angle, we use:

a) SSS Congruence Rule

b) SAS Congruence Rule

c) ASA Congruence Rule

d) RHS Congruence Rule

Answer: b) SAS Congruence Rule

13. The perpendicular bisector of a line segment divides it into two parts that are:

a) Congruent in length

b) Equal in length

c) Similar in length

d) None of the above

Answer: b) Equal in length

14. To construct an angle of 45 degrees, we need to:

a) Bisect an angle

b) Draw an arc with a known radius

c) Draw a line perpendicular to another line

d) Draw a line parallel to another line

Answer: a) Bisect an angle

15. To construct a parallelogram, we need to know the lengths of:

a) All four sides

b) Two adjacent sides and an angle

c) All four angles

d) Only one side

Answer: b) Two adjacent sides and an angle

16. The midpoint of a line segment can be constructed using:

a) A compass only

b) A protractor

c) A ruler

d) A compass and ruler

Answer: d) A compass and ruler

17. To construct an angle of 30 degrees, we need to:

a) Bisect an angle

b) Draw an arc with a known radius

c) Draw a line perpendicular to another line

d) Draw a line parallel to another line

Answer: b) Draw an arc with a known radius

18. The construction of an equilateral triangle can be done by:

a) Bisecting an angle

b) Drawing an arc with a known radius

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: b) Drawing an arc with a known radius

19. To construct a line segment ¾ times the length of another line segment, we can use:

a) An equilateral triangle

b) An isosceles triangle

c) A right-angled triangle

d) None of the above

Answer: c) A right-angled triangle

20. The construction of a line segment parallel to a given line segment can be done by:

a) Drawing an arc with a known radius

b) Bisecting an angle

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: d) Drawing a line parallel to another line

21. To construct a line segment 1/3 times the length of another line segment, we can use:

a) A compass only

b) A ruler only

c) A compass and protractor

d) A compass and ruler

Answer: d) A compass and ruler

22. The construction of an isosceles triangle can be done by:

a) Bisecting an angle

b) Drawing an arc with a known radius

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: b) Drawing an arc with a known radius

23. In constructing a line perpendicular to a given line from a point outside it, we need:

a) A compass only

b) A protractor only

c) A ruler only

d) A compass and ruler

Answer: d) A compass and ruler

24. To construct a rectangle, we need to know the lengths of:

a) All four sides

b) Two adjacent sides and an angle

c) All four angles

d) Only one side

Answer: b) Two adjacent sides and an angle

25. The construction of a line segment 5 times the length of another line segment can be done by:

a) Drawing an arc with a known radius

b) Bisecting an angle

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: a) Drawing an arc with a known radius

26. To construct a square, we need to know the lengths of:

a) All four sides

b) Two adjacent sides and an angle

c) All four angles

d) Only one side

Answer: a) All four sides

27. The construction of an angle of 135 degrees can be achieved by:

a) Bisecting an angle

b) Drawing an arc with a known radius

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: b) Drawing an arc with a known radius

28. In constructing a triangle, if we know the lengths of all three sides, we use:

a) SSS Congruence Rule

b) SAS Congruence Rule

c) ASA Congruence Rule

d) RHS Congruence Rule

Answer: a) SSS Congruence Rule

29. To construct a line segment ½ times the length of another line segment, we can use:

a) An equilateral triangle

b) An isosceles triangle

c) A right-angled triangle

d) None of the above

Answer: a) An equilateral triangle

30. The construction of an angle of 75 degrees can be achieved by:

a) Bisecting an angle

b) Drawing an arc with a known radius

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: b) Drawing an arc with a known radius

31. To construct an angle of 150 degrees, we need:

a) A compass only

b) A protractor only

c) A ruler only

d) A compass and ruler

Answer: d) A compass and ruler

32. In constructing a triangle, if we know the lengths of two sides and the angle between them, we use:

a) SSS Congruence Rule

b) SAS Congruence Rule

c) ASA Congruence Rule

d) RHS Congruence Rule

Answer: c) ASA Congruence Rule

33. The construction of a line segment ¼ times the length of another line segment can be done by:

a) Drawing an arc with a known radius

b) Bisecting an angle

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: c) Drawing a line perpendicular to another line

34. To construct a rhombus, we need to know the lengths of:

a) All four sides

b) Two adjacent sides and an angle

c) All four angles

d) Only one side

Answer: a) All four sides

35. The construction of an angle of 105 degrees can be achieved by:

a) Bisecting an angle

b) Drawing an arc with a known radius

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: b) Drawing an arc with a known radius

36. To construct a line segment 3/5 times the length of another line segment, we can use:

a) An equilateral triangle

b) An isosceles triangle

c) A right-angled triangle

d) None of the above

Answer: a) An equilateral triangle

37. The construction of an angle of 160 degrees can be achieved by:

a) Bisecting an angle

b) Drawing an arc with a known radius

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: b) Drawing an arc with a known radius

38. In constructing a triangle, if we know the lengths of one side and two angles, we use:

a) SSS Congruence Rule

b) SAS Congruence Rule

c) ASA Congruence Rule

d) RHS Congruence Rule

Answer: b) SAS Congruence Rule

39. To construct a line segment 2/3 times the length of another line segment, we can use:

a) An equilateral triangle

b) An isosceles triangle

c) A right-angled triangle

d) None of the above

Answer: b) An isosceles triangle

40. The construction of an angle of 165 degrees can be achieved by:

a) Bisecting an angle

b) Drawing an arc with a known radius

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: b) Drawing an arc with a known radius

41. The construction of a line segment 2 times the length of another line segment can be done by:

a) Drawing an arc with a known radius

b) Bisecting an angle

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: a) Drawing an arc with a known radius

42. To construct a line segment 3/7 times the length of another line segment, we can use:

a) An equilateral triangle

b) An isosceles triangle

c) A right-angled triangle

d) None of the above

Answer: c) A right-angled triangle

43. The construction of an angle of 170 degrees can be achieved by:

a) Bisecting an angle

b) Drawing an arc with a known radius

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: b) Drawing an arc with a known radius

44. In constructing a triangle, if we know the lengths of one side and the two adjacent angles, we use:

a) SSS Congruence Rule

b) SAS Congruence Rule

c) ASA Congruence Rule

d) RHS Congruence Rule

Answer: c) ASA Congruence Rule

45. To construct a line segment 4/5 times the length of another line segment, we can use:

a) An equilateral triangle

b) An isosceles triangle

c) A right-angled triangle

d) None of the above

Answer: d) None of the above

46. The construction of an angle of 175 degrees can be achieved by:

a) Bisecting an angle

b) Drawing an arc with a known radius

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: b) Drawing an arc with a known radius

47. To construct a line segment 1/8 times the length of another line segment, we can use:

a) A compass only

b) A ruler only

c) A compass and protractor

d) A compass and ruler

Answer: d) A compass and ruler

48. In constructing a triangle, if we know the lengths of one side and its opposite angle, we use:

a) SSS Congruence Rule

b) SAS Congruence Rule

c) ASA Congruence Rule

d) RHS Congruence Rule

Answer: b) SAS Congruence Rule

49. To construct a line segment 3/9 times the length of another line segment, we can use:

a) An equilateral triangle

b) An isosceles triangle

c) A right-angled triangle

d) None of the above

Answer: c) A right-angled triangle

50. The construction of an angle of 180 degrees can be achieved by:

a) Bisecting an angle

b) Drawing an arc with a known radius

c) Drawing a line perpendicular to another line

d) Drawing a line parallel to another line

Answer: c) Drawing a line perpendicular to another line