## Exercise 12.1

## Teach san ban

- 1. How many least number of distinct points determine a unique line? In how many points two distinct lines can intersect?
- 3. What are parallel lines?
- 4. In how many points two distinct planes can intersect?
- - (i) Two coplanar lines, whose intersection is empty are said to be ......
  - (ii) Two lines which are both parallel to the same line, are ...... to each
  - (iii) Two intersecting lines cannot both be ...... to the same line.
  - (iv) An angle whose measure is more than 90°, but less than 180° is
    - (v) A point C is said to lie between A and B, if A, B and C are.....and
- 6. What do you understand by the bisector of an angle?
- 7. An angle is 22° less than its complement. What is its measure?
- 8. (a) If the supplement of an angle is three times its complement, find the
  - (b) If the complement of an angle is equal to the supplement of the thrice of it, find the measure of the angle.
- 9. (a) One of two complementary angles is seven-eighth as large as the other. How many degrees are in each angle?
  - (b) (i) Which angle is equal to its complement?
    - (ii) Which angle is equal to its supplement?
- 10. (a) Two supplementary angles differ by 48°. Find the angles.
  - (b) Two supplementary angles are in the ratio 2:3. Find the angles.
  - (c) If  $(6x-4)^{\circ}$  and  $(4x+4)^{\circ}$  are complementary angles, find x.
  - (d) The measures of two supplementary angles are  $(13x + 30^\circ)$  and  $(5x + 6^{\circ})$ , then find the measure of each angle.
  - (e) Two supplementary angles are such that two times the measure of one is equal to three times the other. Find the greater angle.

## **Answers**

- 2. Two distinct lines can intersect only at one point.
- Infinite
- (i) parallel

- (ii) parallel (v) collinear; CB
  - (b) 45°

(a) 45°

9.

10.

7. 34°

- (a) 42°, 48°
- (a) 66°, 114°
- (c) 9°

- (b)  $(i) 45^{\circ}$ (b)  $72^{\circ}$ ,  $108^{\circ}$ .

- (iv) obtuse (iii) parallel
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  - (ii) 90°
- (d) 134° and 46°