CHAPTER-4
DETERMINANTS

EXERCISE - 4.3

1. Find the area of the triangle with vertices at the point

   (i) (1,0), (6,0), (4,3)
   (ii) (2,7), (1,1), (10,8)
   (iii) (-2,-3), (3,2), (-1,-8)

2. Show that points

$$\mathbf{A}(a, b+c), \quad \mathbf{B}(b, c+a), \quad \mathbf{C}(c, a+b) are collinear$$

3. Find values of k if the area of the triangle is 4

   (i) $(k, 0), (4, 0), (0, 2)$
   (ii) $(-2, 0), (0, 4), (0, k)$

4. (i) Find the equation of joining $(1, 2) and (3, 6)$ using determinants.
   (ii) Find the equation of the line joining $(3, 1) and (9, 3)$ using determinants.

5. If the area of the triangle is 35 sq. units with vertices $(2, -6), (5, 4) and (k, 4)$ then k is

   (A) 12 (B) -2 (C) -12, -2 (D) 12, -2