ASSIGNMENT

Ch 4 Determinants

Based on NCERT Exercise 4.3

(Prepared by Amit Bajaj)

Q1. Using determinants, find the area of the triangle whose vertices are $(-2,4),(2,-6)$ and $(5,4)$. Are the given points collinear?

Q2. Find the value of k so that the area of the triangle with vertices A(k+1, 1), B(4, -3) and C(7, -k) is 6 square units.

Q3. Find the value of k so that the area of the triangle with vertices $(1,-1),(-4,2k)$ and $(-k,-5)$ is 24 square units.

Q4. Find the value of λ so that the points (1, -5), (-4, 5) and (λ, 7) are collinear.

Q5. Find the value of "a" for which the given points (2,3),(4,a) and (6,-3) are collinear.

Q6. Show that the points $(a + 5, a - 4)$, $(a - 2, a + 3)$ and (a, a) do not lie on a straight line for any value of a.

Answers

1. Area = $40\,\text{sq.units}$, points are not collinear. 2. $k = 3$ 3. $k = 3, -\frac{9}{2}$

4. $\lambda = -5$ 5. $a = 0$