Coordinate Geometry

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10th Maths - Chapter 7

This is Problem-1(ii) from Exercise 7.3

1. Find the area of the triangle whose vertices are :
   (ii) (–5, –1), (3, –5), (5, 2)
   Solution:
   Given Data:
   x1 =-5,
   x2 = 3,
   x3 = 5,
   y1 = -1,
   y2 = -5
   y3 = 2

$$\tag{1}$$

$$Area of the triangle = \frac{1}{2}[-5(-5-2) + 3(2+1) + 5(-1+5)] \tag{2}$$

$$= \frac{1}{2}(35 + 9 + 20) \tag{3}$$

$$= 32 \tag{4}$$

Therefore, the area of the triangle is 32 square units.