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Finally I get this ebook, thanks for all these I can get now!

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Cool! I'am really happy

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I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

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My friends are so mad that they do not know how I have all the high quality ebook which they do not!

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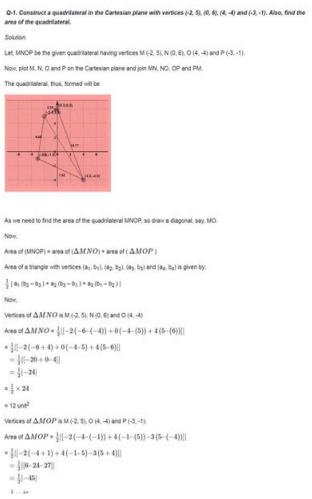
so many fake sites. this is the first one which worked! Many thanks



Q-1. Construct a quadrilateral in the Cartesian plane with vertices (-2, 5), (0, 6), (4, -4) and (-3, -1). Also, find the area of the quadrilateral.

Solution

Let, MNOP be the given quadrilateral having vertices M (-2, 5), N (0, 6), O (4, -4) and P (-3, -1).

Now, plot M, N, O and P on the Cartesian plane and join MN, NO, OP and PM.

The quadrilateral, thus, formed will be

As we need to find the area of the quadrilateral MNOP, so draw a diagonal, say, MO.

Now,

Area of (MNOP) = area of (ΔMNO) + area of (ΔMOP)

Area of a triangle with vertices (a_1, b_1), (a_2, b_2), (a_3, b_3) and (a_4, b_4) is given by:

$\frac{1}{2}|a_1(b_2-b_3)+a_2(b_3-b_1)+a_3(b_1-b_2)|$

Now,

Vertices of ΔMNO is M (-2, 5), N (0, 6) and O (4, -4)

Area of $\Delta MNO = \frac{1}{2}|[-2(-6-(-4))+0(-4-(5))+4(5-(6)]|$

$= \frac{1}{2}|[-2(-6+4)+0(-4-5)+4(5-6)]|$

$= \frac{1}{2}|[-20+0-4]|$

$= \frac{1}{2}|[-24]|$

$= \frac{1}{2} \times 24$

$= 12 \text{ unit}^2$

Vertices of ΔMOP is M (-2, 5), O (4, -4) and P (-3, -1).

Area of $\Delta MOP = \frac{1}{2}|[-2(-4-(-1))+4(-1-(5))-3(5-(-4))]|$

$= \frac{1}{2}|[-2(-4+1)+4(-1-5)-3(5+4)]|$

$= \frac{1}{2}|[6-24-27]|$

$= \frac{1}{2}|[-45]|$

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