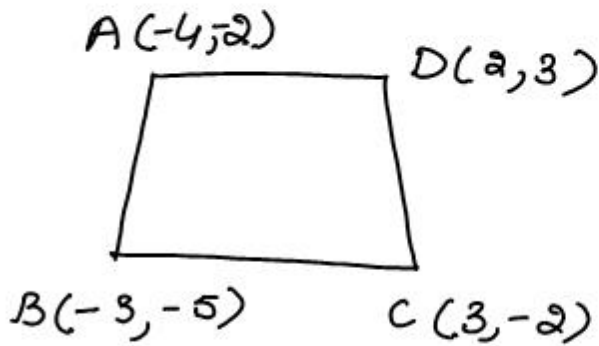


NCERT Solutions by Dev Anoop

④



$$\begin{aligned} \text{area of } \square ABCD &= \frac{1}{2} \begin{vmatrix} -4 & -2 \\ -3 & -5 \\ 3 & -2 \\ 2 & 3 \\ -4 & -2 \end{vmatrix} \\ &= \frac{1}{2} | 20 - 6 + 6 + 15 + 9 + 4 - 4 + 12 | \\ &= \frac{1}{2} | 56 | \\ &= 28 \text{ sq units} \end{aligned}$$

or

$$\begin{aligned} \text{ar}(\triangle ABC) &= \frac{1}{2} | -4(-5+2) - 3(-2+2) + 3(-2+5) | \\ &= \frac{1}{2} | 12 + 9 | \\ &= \frac{21}{2} \text{ sq units} \end{aligned}$$

$$\begin{aligned} \text{ar}(\triangle CDA) &= \frac{1}{2} | 3(3+2) + 2(-2+2) - 4(-2-3) | \\ &= \frac{1}{2} | 15 + 20 | \\ &= \frac{35}{2} \text{ sq units} \end{aligned}$$

$$\begin{aligned} \text{ar}(\square ABCD) &= \frac{21}{2} + \frac{35}{2} \\ &= \frac{56}{2} = 28 \text{ sq units} \end{aligned}$$