



KEC

K Education Centre



GCSE Mathematics

Vectors Assignment part 1

Assignment Questions

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Vectors :

Q1 : Draw and labelled the following vectors .

a) $\begin{pmatrix} -4 \\ 2 \end{pmatrix}$ b) $\begin{pmatrix} 0 \\ 5 \end{pmatrix}$

Q2 : The points P,Q,R,S are the vertices of quadrilateral PQRS where P has the coordinates (2,1) , $\vec{PQ} = \begin{pmatrix} 2 \\ 4 \end{pmatrix}$ $\vec{QR} = \begin{pmatrix} 3 \\ 1 \end{pmatrix}$ and $\vec{RS} = \begin{pmatrix} 4 \\ -2 \end{pmatrix}$.

a) Draw the quadrilateral PQRS.

b) Write as a column vector \vec{PS} .

c) What kind of quadrilateral is PQRS

Q3 : The point P is (1,3) and point Q is (6, 9) and point R is (5, -3).

Write as column vectors :

a) \vec{PQ} b) \vec{QR} c) \vec{PR}

Q4 : In a quadrilateral PQRS , $\vec{PQ} = \begin{pmatrix} 3 \\ 4 \end{pmatrix}$, $\vec{QR} = \begin{pmatrix} 5 \\ 0 \end{pmatrix}$, $\vec{RS} = \begin{pmatrix} -3 \\ -4 \end{pmatrix}$, $\vec{SP} = \begin{pmatrix} -5 \\ 0 \end{pmatrix}$. What type of quadrilateral is PQRS?

Q5 : Find the magnitude of the following vectors :

a) $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ b) $\begin{pmatrix} -2 \\ 7 \end{pmatrix}$