

Marks are indicated in brackets after each question number

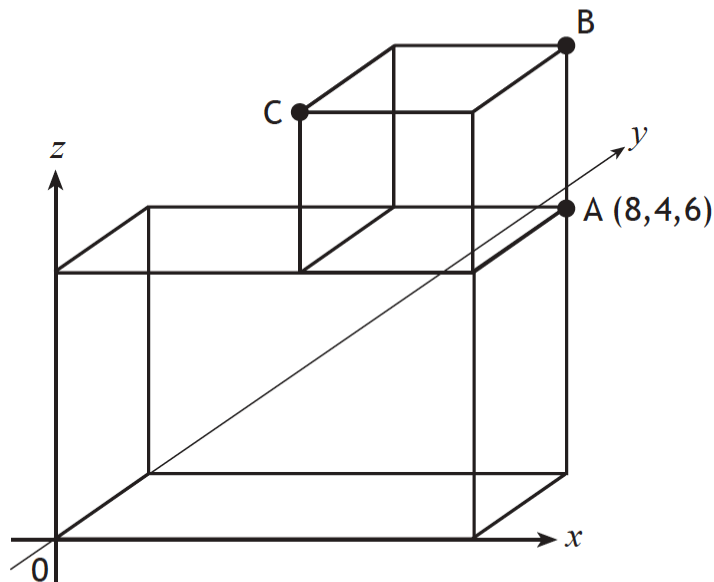
2014 Paper 1 Question 4, (2)

Find the resultant vector $2\mathbf{u} - \mathbf{v}$ when $\mathbf{u} = \begin{pmatrix} -2 \\ 3 \\ 5 \end{pmatrix}$ and $\mathbf{v} = \begin{pmatrix} 0 \\ -4 \\ 7 \end{pmatrix}$.

Express your answer in component form.

2014 Paper 2 Question 2, (2)

The diagram shows a cube placed on top of a cuboid, relative to the coordinate axes.



A is the point (8,4,6).

Write down the coordinates of B and C.

2015 Paper 2 Question 4, (2)

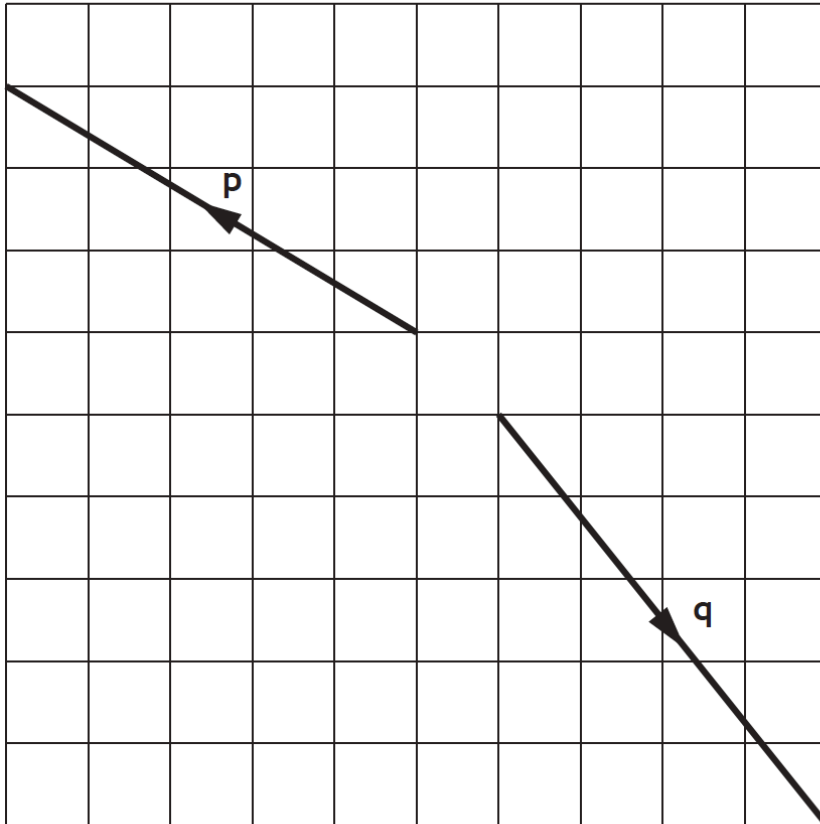
Find $|\mathbf{u}|$, the magnitude of vector $\mathbf{u} = \begin{pmatrix} 6 \\ -13 \\ 18 \end{pmatrix}$.

2015 Paper 2 Question 5, (2)

The vectors \mathbf{p} and \mathbf{q} are shown in the diagram below.

Find the resultant vector $\mathbf{p} + \mathbf{q}$.

Express your answer in component form.



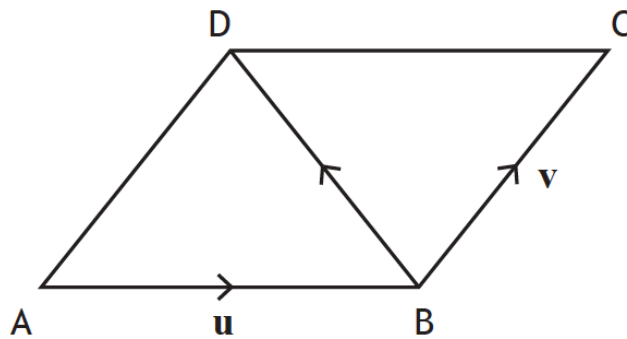
2016 Paper 1 Question 1, (2)

Given $\mathbf{p} = \begin{pmatrix} 4 \\ -6 \end{pmatrix}$ and $\mathbf{q} = \begin{pmatrix} -5 \\ -1 \end{pmatrix}$.

Find the resultant vector $\frac{1}{2}\mathbf{p} + \mathbf{q}$.

Express your answer in component form.

2016 Paper 2 Question 3, (1)

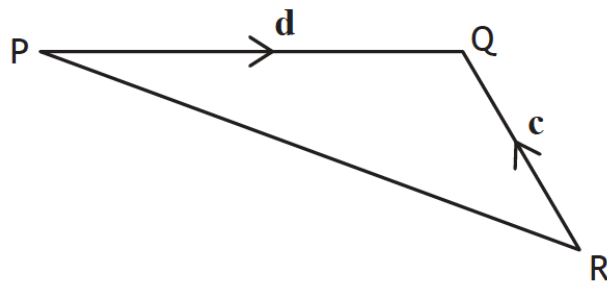


\vec{AB} represents vector \mathbf{u} and \vec{BC} represents vector \mathbf{v} .

Express \vec{BD} in terms of \mathbf{u} and \mathbf{v} .

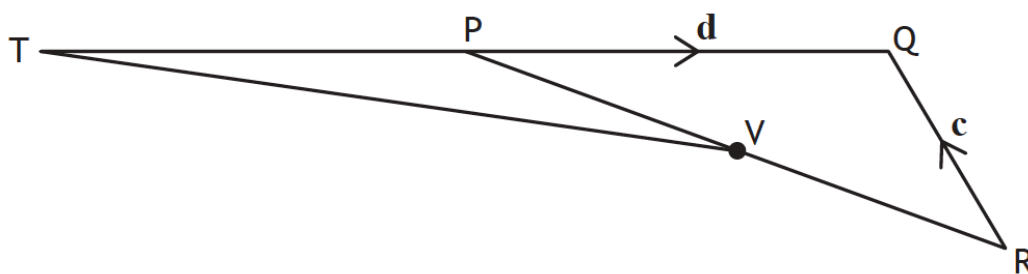
2017 Paper 2 Question 8, (1) (2)

In the diagram below, \vec{RQ} and \vec{PQ} represent the vectors \mathbf{c} and \mathbf{d} respectively.



(a) Express \vec{PR} in terms of \mathbf{c} and \mathbf{d} .

The line QP is extended to T.



- $TP = PQ$
- V is the midpoint of PR

(b) Express \vec{TV} in terms of \mathbf{c} and \mathbf{d} .
Give your answer in simplest form.