

Adding and subtracting vectors in column form

A LEVEL LINKS

Scheme of work: 5a. Definitions, magnitude/direction, addition and scalar multiplication

Practice questions

1 $\mathbf{a} = \begin{pmatrix} 3 \\ 12 \end{pmatrix}$ $\mathbf{b} = \begin{pmatrix} 4 \\ -1 \end{pmatrix}$

Find (a) $\frac{1}{3}\mathbf{a}$ (b) $\mathbf{a} + 2\mathbf{b}$ (c) $2\mathbf{a} - 4\mathbf{b}$

Answers

1 (a) $\begin{pmatrix} 1 \\ 4 \end{pmatrix}$ (b) $\begin{pmatrix} 11 \\ 10 \end{pmatrix}$ (c) $\begin{pmatrix} -10 \\ 28 \end{pmatrix}$