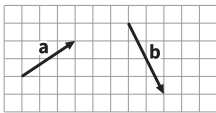
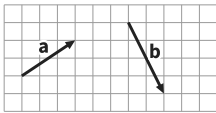


a Work out $\begin{pmatrix} 2 \\ 3 \end{pmatrix} + \begin{pmatrix} 4 \\ 1 \end{pmatrix}$ $\begin{pmatrix} 6 \\ 4 \end{pmatrix}$ adding column vectors	b Work out $\begin{pmatrix} 5 \\ 2 \end{pmatrix} - \begin{pmatrix} 1 \\ 4 \end{pmatrix}$ $\begin{pmatrix} 4 \\ -2 \end{pmatrix}$ subtracting column vectors	c Work out $3 \begin{pmatrix} 2 \\ -1 \end{pmatrix}$ $\begin{pmatrix} 6 \\ -3 \end{pmatrix}$ multiplying by a number	d Work out $\begin{pmatrix} 3 \\ 1 \end{pmatrix} - \begin{pmatrix} -2 \\ 4 \end{pmatrix}$ $\begin{pmatrix} 5 \\ -3 \end{pmatrix}$ subtracting a negative
e Work out $-2 \begin{pmatrix} 4 \\ -3 \end{pmatrix}$ $\begin{pmatrix} -8 \\ 6 \end{pmatrix}$ a negative multiplier	f Work out $\frac{1}{2} \begin{pmatrix} 6 \\ -4 \end{pmatrix}$ $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ a fraction as the multiplier	g $\mathbf{a} = \begin{pmatrix} 3 \\ -1 \end{pmatrix}$, $\mathbf{b} = \begin{pmatrix} -2 \\ 5 \end{pmatrix}$. Find $2\mathbf{a} + \mathbf{b}$ $\begin{pmatrix} 4 \\ 3 \end{pmatrix}$ a combination: $2\mathbf{a} + \mathbf{b}$	h $\mathbf{a} = \begin{pmatrix} 1 \\ 2 \end{pmatrix}$, $\mathbf{b} = \begin{pmatrix} -1 \\ 3 \end{pmatrix}$. Find $2\mathbf{a} - 3\mathbf{b}$ $\begin{pmatrix} 5 \\ -5 \end{pmatrix}$ a combination with subtraction
i Find $\mathbf{x}$ when $\begin{pmatrix} 2 \\ 5 \end{pmatrix} + \mathbf{x} = \begin{pmatrix} 7 \\ 1 \end{pmatrix}$ $\mathbf{x} = \begin{pmatrix} 5 \\ -4 \end{pmatrix}$ an unknown vector	j Find vector $\mathbf{a}$  $\begin{pmatrix} 5 \\ -2 \end{pmatrix}$ a vector drawn on a grid	k Work out $\mathbf{a} + \mathbf{b}$  $\begin{pmatrix} 5 \\ -2 \end{pmatrix}$ adding vectors drawn on a grid	l Find k when $k \begin{pmatrix} 2 \\ -3 \end{pmatrix} = \begin{pmatrix} -8 \\ 12 \end{pmatrix}$ $k = -4$ the multiplier between two vectors

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a Work out $\begin{pmatrix} 2 \\ 3 \end{pmatrix} + \begin{pmatrix} 4 \\ 1 \end{pmatrix}$ $\begin{pmatrix} 6 \\ 4 \end{pmatrix}$ adding column vectors	b Work out $\begin{pmatrix} 5 \\ 2 \end{pmatrix} - \begin{pmatrix} 1 \\ 4 \end{pmatrix}$ $\begin{pmatrix} 4 \\ -2 \end{pmatrix}$ subtracting column vectors	c Work out $3 \begin{pmatrix} 2 \\ -1 \end{pmatrix}$ $\begin{pmatrix} 6 \\ -3 \end{pmatrix}$ multiplying by a number	d Work out $\begin{pmatrix} 3 \\ 1 \end{pmatrix} - \begin{pmatrix} -2 \\ 4 \end{pmatrix}$ $\begin{pmatrix} 5 \\ -3 \end{pmatrix}$ subtracting a negative
e Work out $-2 \begin{pmatrix} 4 \\ -3 \end{pmatrix}$ $\begin{pmatrix} -8 \\ 6 \end{pmatrix}$ a negative multiplier	f Work out $\frac{1}{2} \begin{pmatrix} 6 \\ -4 \end{pmatrix}$ $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ a fraction as the multiplier	g $\mathbf{a} = \begin{pmatrix} 3 \\ -1 \end{pmatrix}$, $\mathbf{b} = \begin{pmatrix} -2 \\ 5 \end{pmatrix}$. Find $2\mathbf{a} + \mathbf{b}$ $\begin{pmatrix} 4 \\ 3 \end{pmatrix}$ a combination: $2\mathbf{a} + \mathbf{b}$	h $\mathbf{a} = \begin{pmatrix} 1 \\ 2 \end{pmatrix}$, $\mathbf{b} = \begin{pmatrix} -1 \\ 3 \end{pmatrix}$. Find $2\mathbf{a} - 3\mathbf{b}$ $\begin{pmatrix} 5 \\ -5 \end{pmatrix}$ a combination with subtraction
i Find $\mathbf{x}$ when $\begin{pmatrix} 2 \\ 5 \end{pmatrix} + \mathbf{x} = \begin{pmatrix} 7 \\ 1 \end{pmatrix}$ $\mathbf{x} = \begin{pmatrix} 5 \\ -4 \end{pmatrix}$ an unknown vector	j Find vector $\mathbf{a}$  $\begin{pmatrix} 5 \\ -2 \end{pmatrix}$ a vector drawn on a grid	k Work out $\mathbf{a} + \mathbf{b}$  $\begin{pmatrix} 5 \\ -2 \end{pmatrix}$ adding vectors drawn on a grid	l Find k when $k \begin{pmatrix} 2 \\ -3 \end{pmatrix} = \begin{pmatrix} -8 \\ 12 \end{pmatrix}$ $k = -4$ the multiplier between two vectors

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