1. $\mathbf{p} = \begin{pmatrix} 5 \\ -2 \end{pmatrix}$ $\mathbf{q} = \begin{pmatrix} -3 \\ 1 \end{pmatrix}$

Work out $2\mathbf{p} + 3\mathbf{q}$ as a column vector.

$\begin{pmatrix} ..... \\ ..... \end{pmatrix}$

2. $\mathbf{a} = \begin{pmatrix} 3 \\ -2 \end{pmatrix}$ $\mathbf{b} = \begin{pmatrix} -2 \\ 5 \end{pmatrix}$

Work out $4\mathbf{a} + 3\mathbf{b}$ as a column vector.

$\begin{pmatrix} ..... \\ ..... \end{pmatrix}$

3. $\mathbf{p} = \begin{pmatrix} 2 \\ -3 \end{pmatrix}$ $\mathbf{q} = \begin{pmatrix} -2 \\ 1 \end{pmatrix}$

Work out $\mathbf{p} + 2\mathbf{q}$ as a column vector.

$\begin{pmatrix} ..... \\ ..... \end{pmatrix}$

Answers

1. 1
   -1

2. 6
   7

3. -2
   -1