a)

Vector $\boldsymbol{m} = \begin{pmatrix} 3 \\ -2 \end{pmatrix}$ and vector $\boldsymbol{n} = \begin{pmatrix} 4 \\ k \end{pmatrix}$.

Vector $3\boldsymbol{m} - 2\boldsymbol{n}$ is parallel to $\begin{pmatrix} -1 \\ 9 \end{pmatrix}$.

Find the value of k.

b)

Vector $\boldsymbol{m} = \begin{pmatrix} 1 \\ k \end{pmatrix}$ and vector $\boldsymbol{n} = \begin{pmatrix} 2 \\ 5 \end{pmatrix}$.

Vector $2\boldsymbol{m} + \boldsymbol{n}$ is perpendicular to $\begin{pmatrix} 1 \\ 2 \end{pmatrix}$.

Find the value of k.

c)

Vector $\boldsymbol{a} = \begin{pmatrix} 1 \\ 5 \\ 4 \end{pmatrix}$, vector $\boldsymbol{b} = \begin{pmatrix} p \\ -1 \\ 2 \end{pmatrix}$ and vector $\boldsymbol{c} = \begin{pmatrix} 1 \\ r \\ 2 \end{pmatrix}$.

Vector $2\boldsymbol{a} + 3\boldsymbol{b} - \boldsymbol{c}$ is parallel to $\begin{pmatrix} 1 \\ 2 \\ 3 \end{pmatrix}$.

Find the values of p and r.

a)

Vector $\boldsymbol{m} = \begin{pmatrix} 3 \\ -2 \end{pmatrix}$ and vector $\boldsymbol{n} = \begin{pmatrix} 4 \\ k \end{pmatrix}$.

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Vector $2\boldsymbol{a} + 3\boldsymbol{b} - \boldsymbol{c}$ is parallel to $\begin{pmatrix} 1 \\ 2 \\ 3 \end{pmatrix}$.

Find the values of p and r.

BACKWARD FADED MATHS