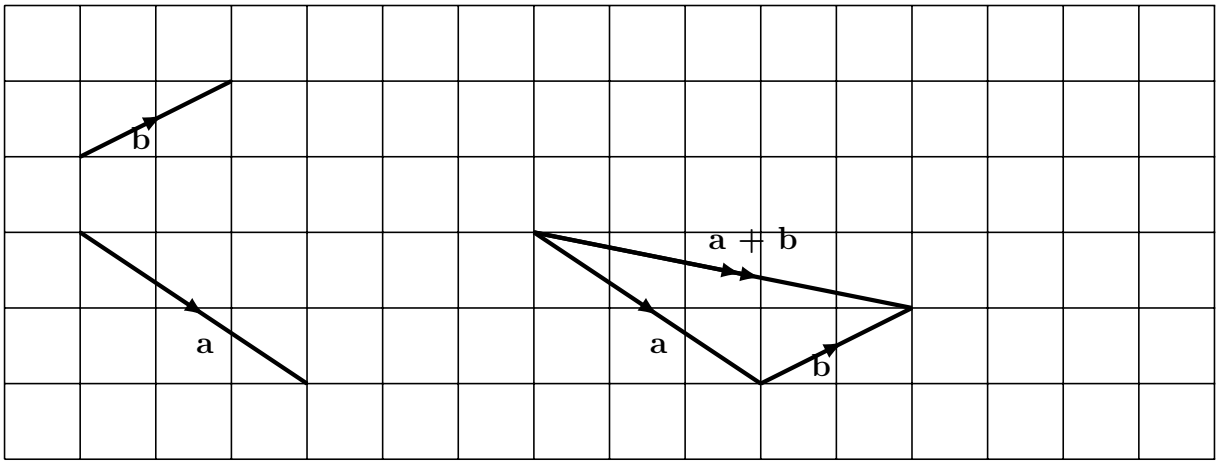
1. Here are some vectors.



(a) Complete these column vectors from the diagram.

(i) $\mathbf{a} = \begin{pmatrix} ..... \\ ..... \end{pmatrix}$ (ii) $\mathbf{b} = \begin{pmatrix} ..... \\ ..... \end{pmatrix}$ (ii) $\mathbf{a} + \mathbf{b} = \begin{pmatrix} ..... \\ ..... \end{pmatrix}$

(b) Can you find a quicker way to work out $\mathbf{a} + \mathbf{b}$?

.....

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translate and vector (10) Q1: (a)(i) $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ (ii) $\begin{pmatrix} 2 \\ 1 \end{pmatrix}$ (iii) $\begin{pmatrix} 5 \\ -1 \end{pmatrix}$

(b) add the top/bottom numbers from $\mathbf{a}$ and $\mathbf{b}$, to find the top/bottom number of $\mathbf{a} + \mathbf{b}$

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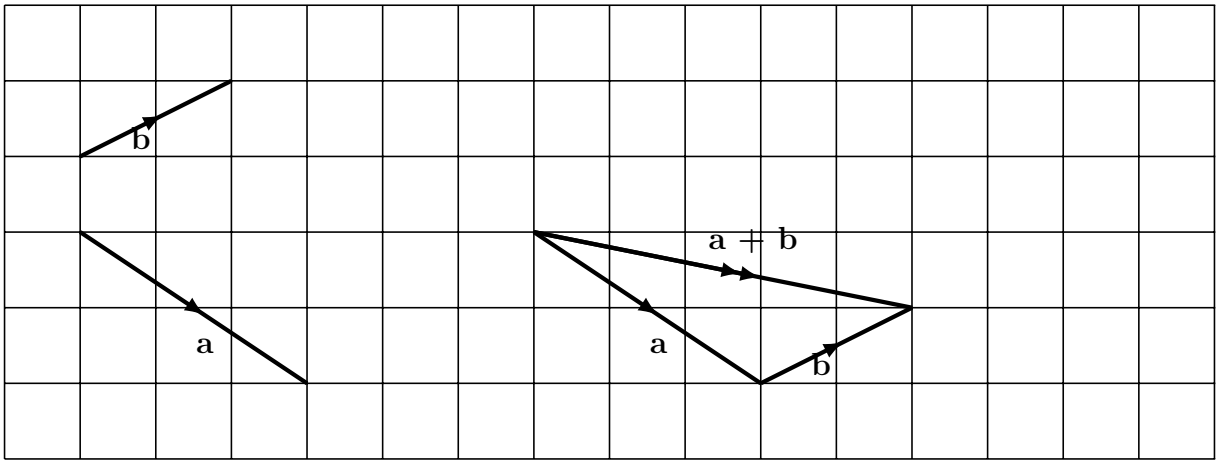
1. Here are some vectors.



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(b) Can you find a quicker way to work out $\mathbf{a} + \mathbf{b}$?

.....

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

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

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

3. $\mathbf{a} = \begin{pmatrix} -1 \\ -3 \end{pmatrix}$ $\mathbf{b} = \begin{pmatrix} -2 \\ 1 \end{pmatrix}$

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

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

translate and vector (10) Q2. $\begin{pmatrix} 7 \\ 2 \end{pmatrix}$ Q3 $\begin{pmatrix} -3 \\ -2 \end{pmatrix}$

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

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

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

3. $\mathbf{a} = \begin{pmatrix} -1 \\ -3 \end{pmatrix}$ $\mathbf{b} = \begin{pmatrix} -2 \\ 1 \end{pmatrix}$

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

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