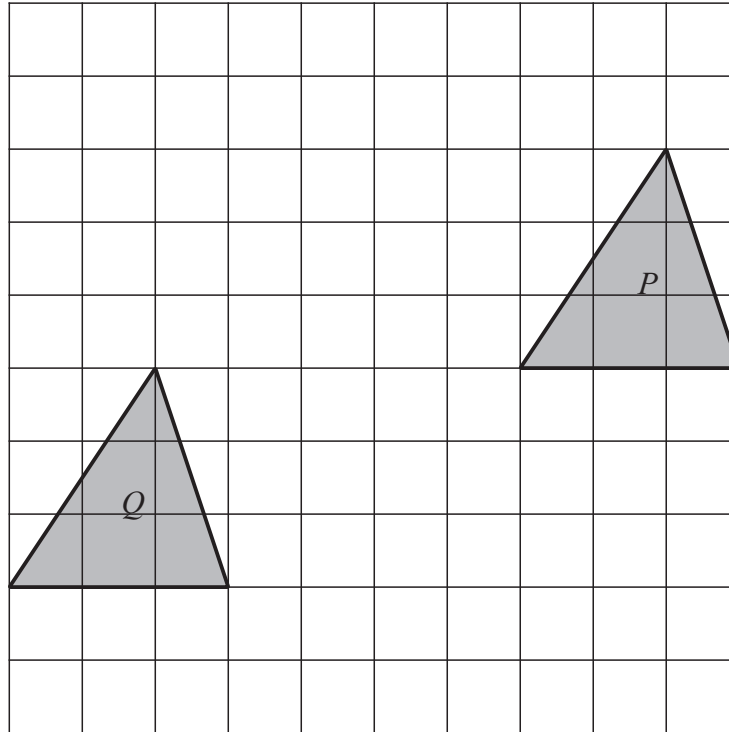


- 1) The translation of triangle P to triangle Q is described by column vector \mathbf{v} .

Write down \mathbf{v} .



- 2) Here are two column vectors: $\mathbf{f} = \begin{bmatrix} -2 \\ 5 \end{bmatrix}$ $\mathbf{g} = \begin{bmatrix} 3 \\ -1 \end{bmatrix}$

Work out

- a) $2\mathbf{f}$
- b) $-\mathbf{g}$
- c) $\mathbf{f} + \mathbf{g}$
- d) $\mathbf{f} - \mathbf{g}$
- e) $2\mathbf{f} + 4\mathbf{g}$
- f) $3\mathbf{g} - \mathbf{f}$