MASTERING MATHEMATICS WITH PLYMOUTH UNIVERSITY

SKE+ Learning together through Problem Solving

An invitation to do some mathematics

Strand J: Transformations, Vectors and Matrices

J3 Vectors

The Mid Point Theorem

A is the mid point of OP, and B is the mid point of OQ.

If $\overrightarrow{OA} = \underline{\mathbf{a}}$ and $\overrightarrow{OB} = \underline{\mathbf{b}}$, then write down the following vectors in terms of $\underline{\mathbf{a}}$ and $\underline{\mathbf{b}}$.

(i) $\overrightarrow{OP}$ (ii) $\overrightarrow{OQ}$ (iii) $\overrightarrow{AB}$ (iv) $\overrightarrow{PQ}$

Prove that AB is parallel to PQ and that PQ is twice the length of AB.

