

3. Given that the point A has position vector $4\mathbf{i} - 5\mathbf{j}$ and the point B has position vector $-5\mathbf{i} - 2\mathbf{j}$,

(a) find the vector \overrightarrow{AB} ,

(2)

(b) find $|\overrightarrow{AB}|$.

Give your answer as a simplified surd.

(2)