

2	(i)	$(1 - (-3))^2 + (-2 - (-1))^2 + (5 - 2)^2$ (= 26) Length = $\sqrt{26}$ or 5.10 or 5.1 (2 sf)	<b>M1</b> <b>A1</b> <b>[2]</b>	<b>1.1a</b> <b>1.1</b>	Attempt. Allow with one sign error	$\sqrt{\quad}$ not nec'y
2	(ii)	$\begin{pmatrix} -1 \\ -1.5 \\ 3.5 \end{pmatrix}$	<b>B1</b>  <b>[1]</b>	<b>1.1</b>		
2	(iii)	$\vec{BA} = \begin{pmatrix} 4 \\ -1 \\ 3 \end{pmatrix}$ $\vec{PQ} = \begin{pmatrix} 5 \\ 1 \\ 3 \end{pmatrix} - \begin{pmatrix} 1 \\ 2 \\ 0 \end{pmatrix} = \begin{pmatrix} 4 \\ -1 \\ 3 \end{pmatrix}$ <i>BA = PQ</i> and <i>BA // PQ</i> and hence <i>ABPQ</i> is a parallelogram ( <b>AG</b> )	<b>M1</b>    <b>M1</b>    <b>A1</b> <b>[3]</b>	<b>2.1</b>         <b>1.1</b>  <b>2.2a</b>	or quote result for $\vec{BA}$ from <b>(ii)</b> or <b>(i)(a)</b>  or similar methods with <i>AQ</i> & <i>BP</i> or <i>AB</i> and <i>QP</i> etc Allow find eg $\vec{AB}$ and $\vec{PQ}$ or $\vec{BA} = \vec{PQ}$ with arrows or $ BA  =  PQ $ & $ BP  =  AQ $ shown & stated or <i>BA // PQ</i> & <i>BP // AQ</i> shown & stated Both statements needed, dep M1M1	SC Incorrect, but equal, vectors <i>BA</i> & <i>PQ</i> with correct conclusion SC B1  Allow without method SC Lengths only seen: M1M0  Just $ BA  =  PQ $ A0