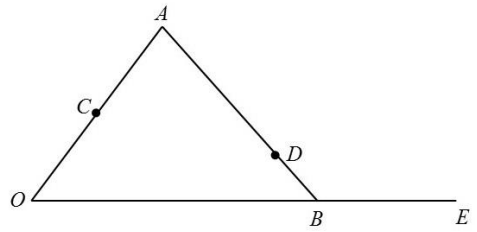
Question	Working	Answer	Mark	Notes
23	 $\overrightarrow{AB}$ = **b** – **a** or $\overrightarrow{BA}$ = **a** – **b**	Correct simplified vectors for two of $\overrightarrow{CD}, \overrightarrow{DE}, \overrightarrow{CE}$ with a correct explanation	5	M1 Correct diagram (only points needed, condone missing vector labels) **OR** for finding $\overrightarrow{AB}$ or $\overrightarrow{BA}$ - may be seen as part of later working
	$\overrightarrow{AD} = \frac{3}{4}$ (**b** – **a**) **or** $\overrightarrow{DA} = \frac{3}{4}$ (**a** – **b**) **or** $\overrightarrow{DB} = \frac{1}{4}$ (**b** – **a**) **or** $\overrightarrow{BD} = \frac{1}{4}$ (**a** – **b**)			M1 method to find $\overrightarrow{AD}$ **or** $\overrightarrow{DA}$ **or** $\overrightarrow{DB}$ **or** $\overrightarrow{BD}$ - may be seen as part of later working
	$\overrightarrow{CD} = \frac{1}{2}$**a** + $\frac{3}{4}$ (**b** – **a**) (= $\frac{3}{4}$ **b** – $\frac{1}{4}$ **a**) **or** $\overrightarrow{DE} = \frac{1}{4}$ (**b** – **a**) + $\frac{1}{2}$**b** (= $\frac{3}{4}$ **b** – $\frac{1}{4}$ **a**) **or** $\overrightarrow{CE} = -\frac{1}{2}$**a** + **b** + $\frac{1}{2}$**b** (= $\frac{3}{2}$ **b** – $\frac{1}{2}$ **a**)			M1 oe, method to find $\overrightarrow{CD}$ or $\overrightarrow{DE}$ or $\overrightarrow{CE}$
				M1 A correct vector expression in terms of **a** and **b** for two of $\overrightarrow{CD}, \overrightarrow{DE}, \overrightarrow{CE}$
				A1 A correct conclusion eg $\overrightarrow{CD}$ = $\overrightarrow{DE}$ so *CDE* is a straight line $\overrightarrow{CE}$ = 2$\overrightarrow{CD}$ so *CDE* is a straight line $\overrightarrow{CE}$ = 2$\overrightarrow{DE}$ so *CDE* is a straight line
				Total 5 marks