Q1. (2021)

Q	Answer	Mark	Comments
3	$\frac{16}{81}$	B1	

Q2. (2024)

Q	Answer	Mark	Comments
23	One correct expression eg $(\overrightarrow{DE} =) 6\mathbf{a} + \mathbf{b} + 2\mathbf{a} - 5\mathbf{b}$ or $(\overrightarrow{DF} =) 6\mathbf{a} + \mathbf{b} + 4\mathbf{a} - 6\mathbf{b}$ or $(\overrightarrow{EF} =) -2\mathbf{a} + 5\mathbf{b} + 4\mathbf{a} - 6\mathbf{b}$	M1	oe eg $(\overrightarrow{ED} =) -6\mathbf{a} - \mathbf{b} - 2\mathbf{a} + 5\mathbf{b}$ or $(\overrightarrow{FD} =) -6\mathbf{a} - \mathbf{b} - 4\mathbf{a} + 6\mathbf{b}$ or $(\overrightarrow{FE} =) 2\mathbf{a} - 5\mathbf{b} - 4\mathbf{a} + 6\mathbf{b}$ accept unprocessed brackets eg $(\overrightarrow{EF} =) -(2\mathbf{a} - 5\mathbf{b}) + 4\mathbf{a} - 6\mathbf{b}$
	Two correct expressions from $\overrightarrow{DE}$ $\overrightarrow{DF}$ $\overrightarrow{EF}$	M1dep	oe eg $\overrightarrow{DE}$ and $\overrightarrow{FD}$ accept unprocessed brackets
	Two fully simplified expressions from $(\overrightarrow{DE} =) 8\mathbf{a} - 4\mathbf{b}$ $(\overrightarrow{DF} =) 10\mathbf{a} - 5\mathbf{b}$ $(\overrightarrow{EF} =) 2\mathbf{a} - \mathbf{b}$	A1	oe eg $(\overrightarrow{DE} =) 8\mathbf{a} - 4\mathbf{b}$ and $(\overrightarrow{FD} =) -10\mathbf{a} + 5\mathbf{b}$
	Two fully simplified expressions from $(\overrightarrow{DE} =) 8\mathbf{a} - 4\mathbf{b}$ $(\overrightarrow{DF} =) 10\mathbf{a} - 5\mathbf{b}$ $(\overrightarrow{EF} =) 2\mathbf{a} - \mathbf{b}$ and valid indication that the vectors are parallel	A1	eg $(\overrightarrow{DE} =) 8\mathbf{a} - 4\mathbf{b}$ and $(\overrightarrow{FE} =) -2\mathbf{a} + \mathbf{b}$ and $8\mathbf{a} - 4\mathbf{b} = -4(-2\mathbf{a} + \mathbf{b})$ or $(\overrightarrow{DF} =) 10\mathbf{a} - 5\mathbf{b}$ and $(\overrightarrow{EF} =) 2\mathbf{a} - \mathbf{b}$ and $\overrightarrow{DF} = 5\overrightarrow{EF}$
	Additional Guidance		
	Condone absence of vector notation		
	Condone eg $\overrightarrow{DCE}$ or D to E for $\overrightarrow{DE}$		
	If the only two correct expressions are eg $\overrightarrow{DE}$ and $\overrightarrow{ED}$ the maximum possible mark is M1		
	Only combining the three given vectors		Zero
	$\overrightarrow{DF} = \overrightarrow{DE} + \overrightarrow{EF}$ is not a valid indication		
	Stating eg $\overrightarrow{DF}$ is a (scalar) multiple of $\overrightarrow{EF}$ is not enough for the final A1		