

Q	Marking instructions	AO	Marks	Typical solution
17(a)	Finds correct magnitude of force.  Condone omission of units	1.1b	B1	$\sqrt{12^2 + 9^2} = 15 \text{ N}$
	Subtotal		1	

Q	Marking instructions	AO	Marks	Typical solution
17(b)(i)	Forms correct expression for $\overrightarrow{AB}$  Condone omission of units	1.1b	B1	$\overrightarrow{AB} = \begin{bmatrix} k-3 \\ k-8 \end{bmatrix} \text{ metres}$
	Subtotal		1	

Q	Marking instructions	AO	Marks	Typical solution
17(b)(ii)	Deduces $\overrightarrow{AB}$ is a scalar multiple of $\begin{bmatrix} 12 \\ 9 \end{bmatrix}$	2.2a	M1	Since direction of movement is in direction of force then $\overrightarrow{AB}$ is a scalar multiple of $\begin{bmatrix} 12 \\ 9 \end{bmatrix}$
	Deduces $k = 23$  FT their answer to part (b)(i)	2.2a	A1F	
	Subtotal		2	

	Question 17 Total		4	
--	-------------------	--	---	--