Question Number	Scheme	Marks	Notes
5(a)	$\tan\theta = \frac{2}{3}$	M1	Use trig to find a relevant angle $(56.3°,\ \ 33.7°)$
	Angle is $\theta + 90^{\circ} = 123.69°..$	A1	$124°$ or better (2.16 radians)
		(2)	
(b)	$\mathbf{F}_1 + \mathbf{F}_2 = (a\mathbf{i} + 3\mathbf{j}) + (-4\mathbf{i} + b\mathbf{j})\ (= k(3\mathbf{i} - 2\mathbf{j}))$	M1	Resultant force seen or implied: must be the sum, NOT the difference As a column vector or in **i** / **j** form
	Use direction to form equation in *a* and *b*	M1	From ratio of scalars or 2 separate equations involving $k \neq 1$
	$\frac{a-4}{3+b} = \frac{3}{-2}$	A1	Correct unsimplified equation
	$0 = 2a + 3b + 1$ Given answer	A1	Obtain **given answer** from correct working- need to see evidence
		(4)	
		(6)	