

6(a)	(i)	Resultant	$= 2\vec{i} - 6\vec{j} - 6\vec{i} + 3\vec{j}$ $= -4\vec{i} - 3\vec{j}$	5	
				5	10
	(ii)	Magnitude	$= \sqrt{4^2 + 3^2}$ $= 5 \text{ N}$	5	
				5	10
	(iii)	moments about p			
		R.x	$= 6(0.2) - 6(0.2)$ $= 0$	5	
		$\Rightarrow$ x	$= 0$	5	10
		i.e. resultant passes through p			
(b)		$20W \cdot \frac{h}{2}$	$= W \cdot \frac{0.2}{2}$	5, 5, 5	
		$\Rightarrow$ h	$= 0.01 \text{ m}$ or 1 cm	5	20