

9	(a)	<p>Attempt resolution of forces</p> <p>Horizontal component = $5 + 2\cos 40$ (= 6.5321)</p> <p>Vertical component = $2\sin 40$ (= 1.2856)</p> <p>$\sqrt{6.5321^2 + 1.2856^2} = 6.66\text{ N}$</p>	<p>M1</p> <p>A1</p> <p>A1</p> <p>[3]</p>	<p>1.1a</p> <p>1.1</p> <p>1.1</p>	<p>Allow sin/cos confusion</p> <p>Allow for either the horizontal or vertical component correct</p> <p>Use correct method for magnitude</p>	<p>OR</p> <p>M1 Form triangle of forces</p> <p>A1 Use cosine rule with 140°</p> <p>A1 Obtain 6.66 N</p>
9	(b)	<p>$\tan^{-1}\left(\frac{2\sin 40}{5 + 2\cos 40}\right) = 11.1^\circ$</p>	<p>B1FT</p> <p>[1]</p>	<p>1.1</p>	<p>FT their components from part (i)</p>	