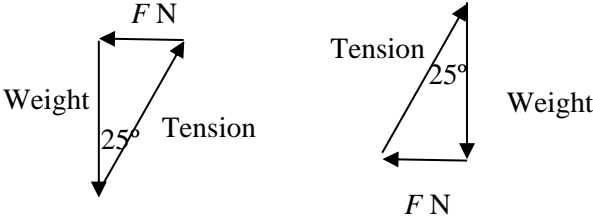


Question			Answer	Marks	AO	Guidance
5	(a)		<p>Either of these is acceptable</p> 	<p>B1 B1</p> <p>[2]</p>	<p>1.1b 1.1b</p>	<p>Arrows making a closed loop in roughly the right directions</p> <p>Tension, weight and F labelled on their triangle and 25° (or 65°) correctly labelled. May be given as a suitable angle outside the triangle.</p>
5	(b)		<p>Using the triangle of forces</p> $F = 3g \tan 25^\circ \text{ or } \text{Tension} = \frac{3g}{\cos 25^\circ}$ $F = 13.7$ <p>Tension = 32.4 N</p> <p>Alternative method</p> <p>Resolve vertically $T \cos 25^\circ = 3g$</p> $T = 32.4 \text{ N}$ <p>Resolve horizontally $F = T \sin 25^\circ = 13.7$</p>	<p>M1</p> <p>A1</p> <p>A1</p> <p>M1</p> <p>A1</p> <p>A1</p> <p>[3]</p>	<p>1.1a</p> <p>1.1b</p> <p>1.1b</p>	<p>Allow sin/cos or $25^\circ/65^\circ$ interchange to find F or T</p> <p>cao</p> <p>cao</p> <p>Allow sin/cos interchange or $25^\circ/65^\circ$ interchange</p> <p>cao</p> <p>cao</p>