

Question Number	Answer	Mark
12(a)	<ul style="list-style-type: none"> States that W is the weight of the rider (and unicycle) and R is the push/reaction force (from the ground) (1) R and W are different types of force (1) <p>Or R and W act on the same object Or R and W are not equal.</p> <ul style="list-style-type: none"> They are not a N3 pair of forces (1) <p>MP3 conditional on MP2</p>	3
12(b)	<ul style="list-style-type: none"> The resultant force acting in the vertical direction is zero so the unicycle will remain at that height (1) <p>Or The resultant force acting in the vertical direction is zero so zero acceleration in the vertical direction (1)</p> <ul style="list-style-type: none"> The unicycle moves at a constant (forward) speed because the resultant horizontal force is zero or horizontal forces are balanced (because forward frictional force balances backward drag forces) 	2
Total for question 12		5