

If they use $g = 9.81$ or 10 in this question, penalise once for whole question.

Question		Scheme	Marks	AOs
4(a)	Complete method to find equation in t only: $14.7 - gt = 0$		M1	3.1b
	$t = 1.5$ (s)		A1	1.1b
			(2)	
4(b)	Complete method to find equation in t only		M1	3.1b
	$-19.6 = 14.7t - \frac{1}{2}gt^2$		A1	1.1b
	4 (s)		A1	1.1b
			(3)	
4(c)	e.g. include wind effects, the spin of the stone, size of stone. B0 if any incorrect extras.		B1	3.5c
			(1)	
(6 marks)				
Notes:				
4(a)	M1	Complete method		
	A1	cao		
4(b)	M1	Complete method to find <i>total</i> time. If finding time up and down, need to add them to earn M mark		
	A1	Correct equation(s).		
	A1	Cao. A0 if -1 is not clearly excluded.		
4(c)	B1	e.g. include wind effects, the spin of the stone, size of stone. B0 if any incorrect extras are included		