

Question number	Answer	Notes	Marks
3 (a)	planet;		1
(b)	comet;	accept planet	1
(c)	substitution into given formula; conversion of 35 days into seconds; evaluation;  e.g. $v = 2 \times \pi \times 1.5 \times 10^{11} / (35 \times 24 \times 60 \times 60)$ $v = 310\,000 \text{ m/s}$	allow full credit for $2.6927937 \times 10^{10}$ if unit changed to m/day.  311665.93(7)8  Answer for incorrect/no conversion of days→ seconds $2.69\text{etc} \times 10^{10}$ scores 2  -1 for POT error	3

(Total for Question 3 = 5 marks)