

Question number	Answer	Notes	Marks
3 (a)	C the Solar System;		(1)
(b)	small circle centred on Q;		(1)
(c)	correct shape; correct orbit, star is clearly not at the centre of the orbit;	accept <ul style="list-style-type: none"> • 'open' ellipse /eq • oval • hyperbola it is not necessary that perihelion < orbital radius of S	(2)
(d) (i)	Any one comparison from: MP1. smaller {orbital path/ distance travelled} for close planets; MP2. larger speed for close planets;	Allow reverse arguments accept smaller orbital radius ignore lack of gravity all refs to time	(1)
(ii)	C planet S makes more orbits than P;		(1)
(e) (i)	250 (million km);		(1)
(ii)	150 (million km);		(1)

Total for Question 3 = 8 marks