

Mark schemes

Q1.

- | | | |
|-----|--|------------|
| (a) | a satellite | 1 |
| (b) | arrow drawn towards the centre of the Earth from the Hubble Space Telescope | 1 |
| (c) | any correct change in distance with the correct change in time
e.g. 38 (km) and 5 (s) | 1 |
| | a correct substitution of a correct pair of values
e.g. $v = \frac{38}{5}$ | 1 |
| | a correctly calculated answer
e.g. $v = 7.6 \text{ (km/s)}$ | 1 |
| (d) | galaxy C | 1 |
| (e) | galaxy C | 1 |
| (f) | to check the observations are correct | 1 |
| | | [8] |