

Practice Questions MS - Topic 9: Exploring The Moon



By Ben Fletcher

Feel free to contact me by my school email if you have any queries or want an explanation of a question. – Ben F :)

1a) 2 marks – Spec 9.2, 2.7

- B1 for “we always see the same side” or similar
- B2 for “revolution and rotation periods are equal” or similar

1b) 2 marks – Spec 9.3

- Two given for two marks, one for one: probes, orbiters/satellites, human missions

1c) 1 mark – Spec 9.2

- Both side identified correctly for the mark: side A = near, Side B = far

1d) 4 marks – Spec 9.2, 9.3

- B1 “smoother/less craters on far side” or similar
- B2 for “because of lava flows on near side” or similar
- B3 for “more maria on near side” or similar
- B4 for “thinner crust on near side” or similar
- Allow converse arguments for all

2) 3 marks – Spec 9.5

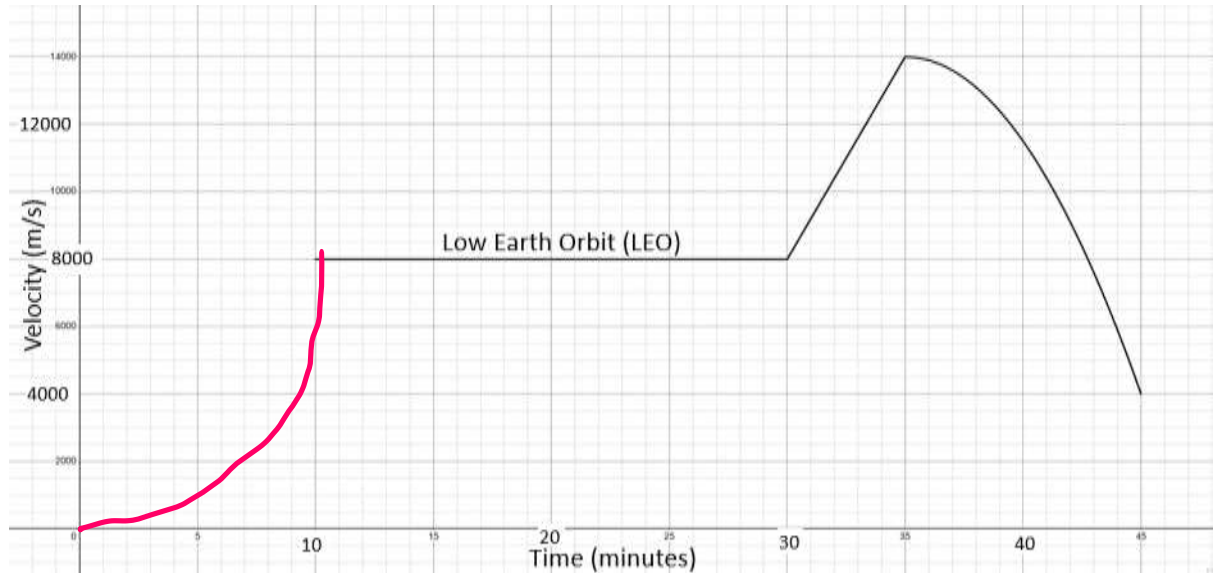
- B1 for “giant impact”
- B2 for “Capture”
- B3 for “Co-accretion”

3) 4 marks – Spec 9.1

- M1 for $6500/13000 = 0.5$ or 50%
- M2 for $50\% * 0.4$ or $50\% / 2.5 = 20\%$
- M3 for $20\% * 3500$ or $3500/5 = 700$
- A1 for 700km

4a) 2 marks – Spec 9.4

- B1 + B2 for a curve connecting (0,0) to (10, 8000) that has an increasing gradient.



- Allow 1 mark for a straight line

4b) 4 marks – Spec 9.4

- M1 for $14000 - 8000 = 6000$
- M2 for $5 * 60 = 300$
- M3 for $6000/30$
- A1 for 20

4c) 4 marks – Spec 9.4

- M1 for 32.5 minutes read as 11,000
- M2 for $6.05 \times 10^{11} / (11000)^2 = 5000$
- M3 for $5000 * 2 = 10,000$
- A1 for 10 Tonnes

4d) 3 marks – Spec 9.4

- M1 for 10,000 used (ie not 10)
- M2 for $10,000 * 20 = 200000$
- M3 for 200kN

4e) 1 mark – Spec 9.4

- A1 for 8

4f) 3 marks – Spec 9.4

- M1 for $10 \times 10^6 * 8 = 80 \times 10^6$
- M2 for $80 \times 10^6 * 100/5 = 1.6 \times 10^9$
- A1 for £ 1.6×10^9