

- 10** The International Space Station (ISS) is a satellite that orbits the Earth at a height of 409 km above the surface of the Earth.

The ISS has an orbital speed of 7.66 km/s and a period of 92.7 minutes.

- (a) (i) Calculate the orbital radius of the ISS.

Give your answer to 3 significant figures.

(4)

orbital radius = ..... km

- (ii) Calculate the radius of the Earth using your value for the orbital radius.

(1)

Earth radius = ..... km

**(Total for Question 10 = 5 marks)**