

Gateway Science Physics A

J249/02 Physics A P5-P8 and P9 (Foundation Tier)

Question Set 21

21

Rockets carry satellites into space.

(a) Satellites are kept in orbit around a planet by a force.

Name this force?

[1]

(b) Name the Earth's natural satellite.

[1]

(c) A vehicle called the Mars Rover was sent to Mars in a rocket.



Mars Rover

The Mars Rover has a mass of 185 kg.

The gravitational field strength (g) on Mars is 3.75 N/kg.

Calculate the weight of the Mars Rover vehicle on Mars.

State the unit for weight.

Show your working and give your answer to **3** significant figures

Answer = Unit =

[5]

(d) (i) Why did the Mars Rover weigh more on Earth than on Mars?

[1]

Total Marks for Question Set 21: 8

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