

**GCSE Physics A (Gateway)**

**J249/04 Physics A P5-P8 and P9 (Higher Tier)**

**Question Set 16**

1

A car on a roller coaster is stationary at the top of a slope.

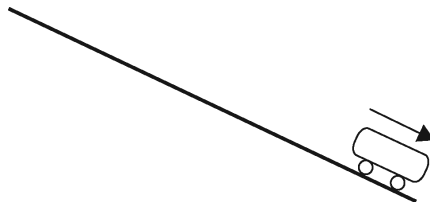
The car has a weight of 6 500 N and a potential energy of 217 000 J.

(a) Calculate the cars height above the ground.

Answer = ..... m

[2]

(b) The diagram shows the roller coaster car moving down a slope.



The energy at the bottom of the slope is less than expected.

Suggest two ways to improve the efficiency of the roller coaster car.

[2]

**Total Marks for Question Set 16: 4**

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