

GCSE Physics B (Twenty First Century Science)
J259/01 Breadth in Physics (Foundation Tier)

Question Set 32

1

Kai sees this information in an advert for a plane ticket.

Weight limit for bags = 20 kg

Kai thinks this information is wrong.

The advert does not show weight limits.
It shows mass limits.



(a) Define **weight**. *The force of gravity on an object* [1]

(b) Kai wants to know if his bag is too heavy to take on the plane. He needs to find its weight.

(i) Name a measuring instrument he could use to find its weight. [1]
Newton meter

(ii) Describe how he can use your answer to (b)(i) to find the weight of the bag. [1]
Hang the object on the newton meter

(c) Kai finds that the weight of his bag is 240 N.

Calculate the mass of the bag.

Gravitational field strength = 10 N/kg

$$W=mg \text{ so } 240 = 10m \text{ so } m= 24\text{kg}$$

Mass = *24kg* kg [3]

Total Marks for Question Set 32: 6

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