

GCSE Physics B (Twenty First Century Science)
J259/02 Depth in physics (Foundation Tier)

Question Set 22

1 Beth is a skydiver. Skydivers freefall before opening a parachute.

(a) (i) After falling for a small period of time, balanced forces act on Beth.

Describe Beth's movement when these balanced forces act.

[1]

(ii) Draw **two** labelled arrows on the diagram to identify these balanced forces acting on Beth.



[2]

(b) Beth has a mass of 60 kg.

Calculate Beth's weight.

Use the equation: weight = mass \times gravitational field strength

Gravitational field strength = 10N/kg

Weight = N [2]

(c) Mass is a scalar quantity. Weight is a vector quantity.

(i) Give **one** other example of a vector quantity.

[1]

(ii) What is the difference between a vector quantity and a scalar quantity?

[1]

Total Marks for Question Set 22: 7

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