IGCSE MECHANICS II

HOMEWORK 3 – Centre of mass

TIME min

NAME…………………………………………………………………….. Total /

You should be able to:

**Centre of mass**

**Core**

• Perform and describe an experiment to determine the position of the centre of mass of a plane lamina

• Describe qualitatively the effect of the position ofthe centre of mass on the stability of simple objects

**Scalars and vectors**

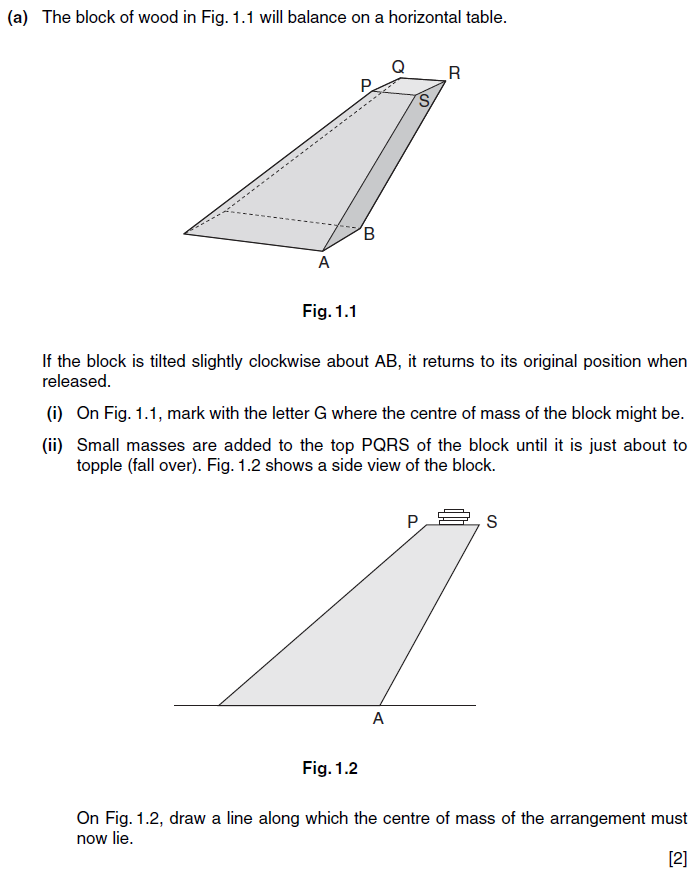
**Supplement**

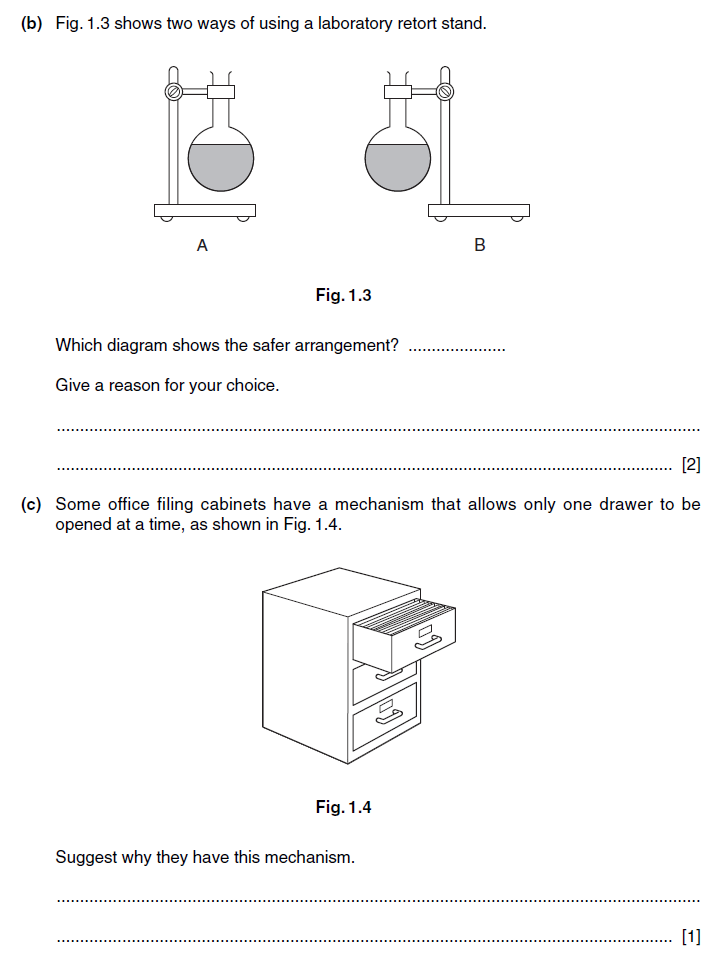
• Demonstrate an understanding of the difference between scalars and vectors and give common examples

• Add vectors by graphical representation to determine a resultant

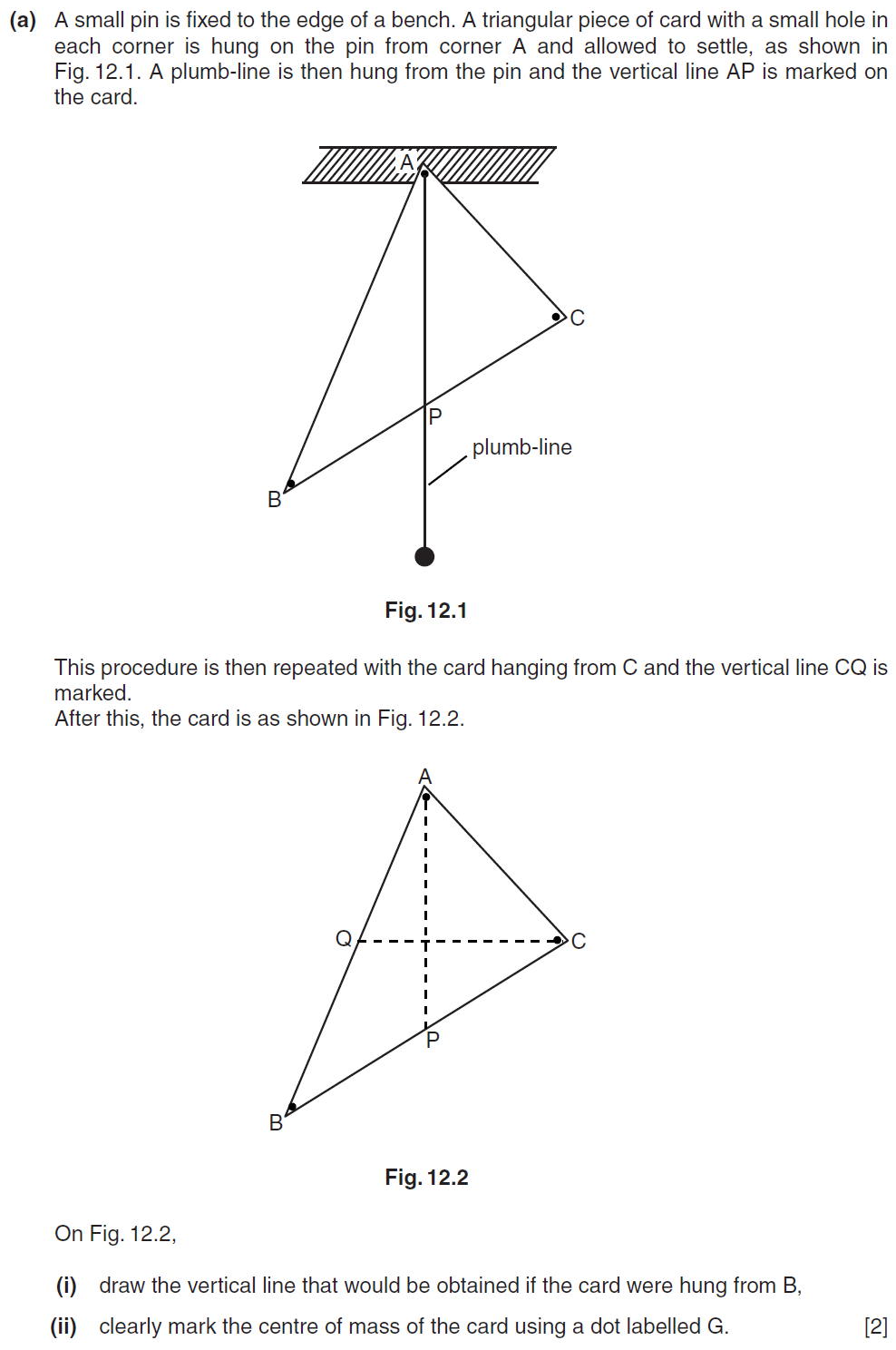
• Determine graphically the resultant of two vectors

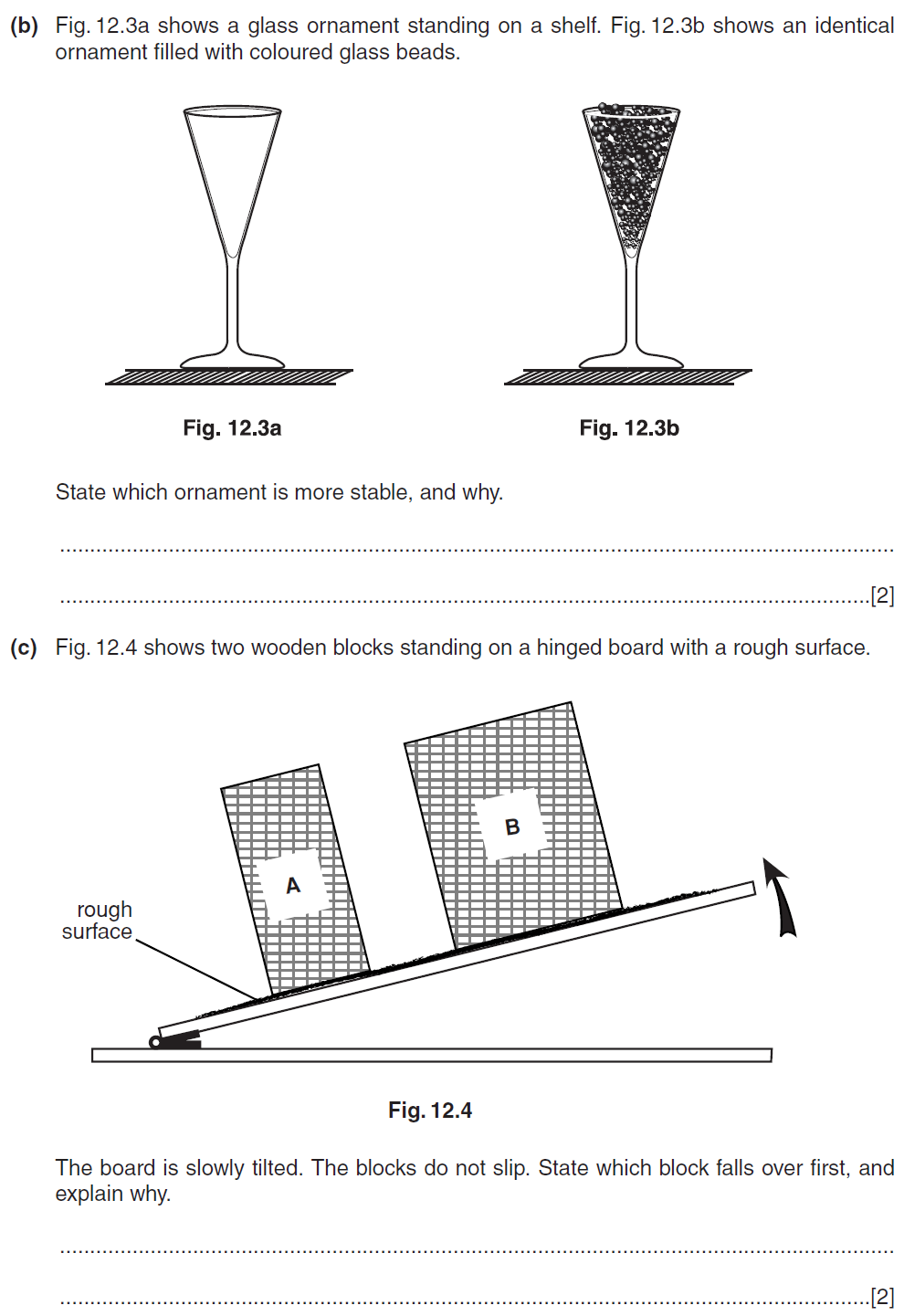
1.





2.





3. a) Define a scalar quantity and a vector quantity

Scalar - ………………………………………………………………………………………………………………………………………

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Vector - ………………………………………………………………………………………………………………………………………

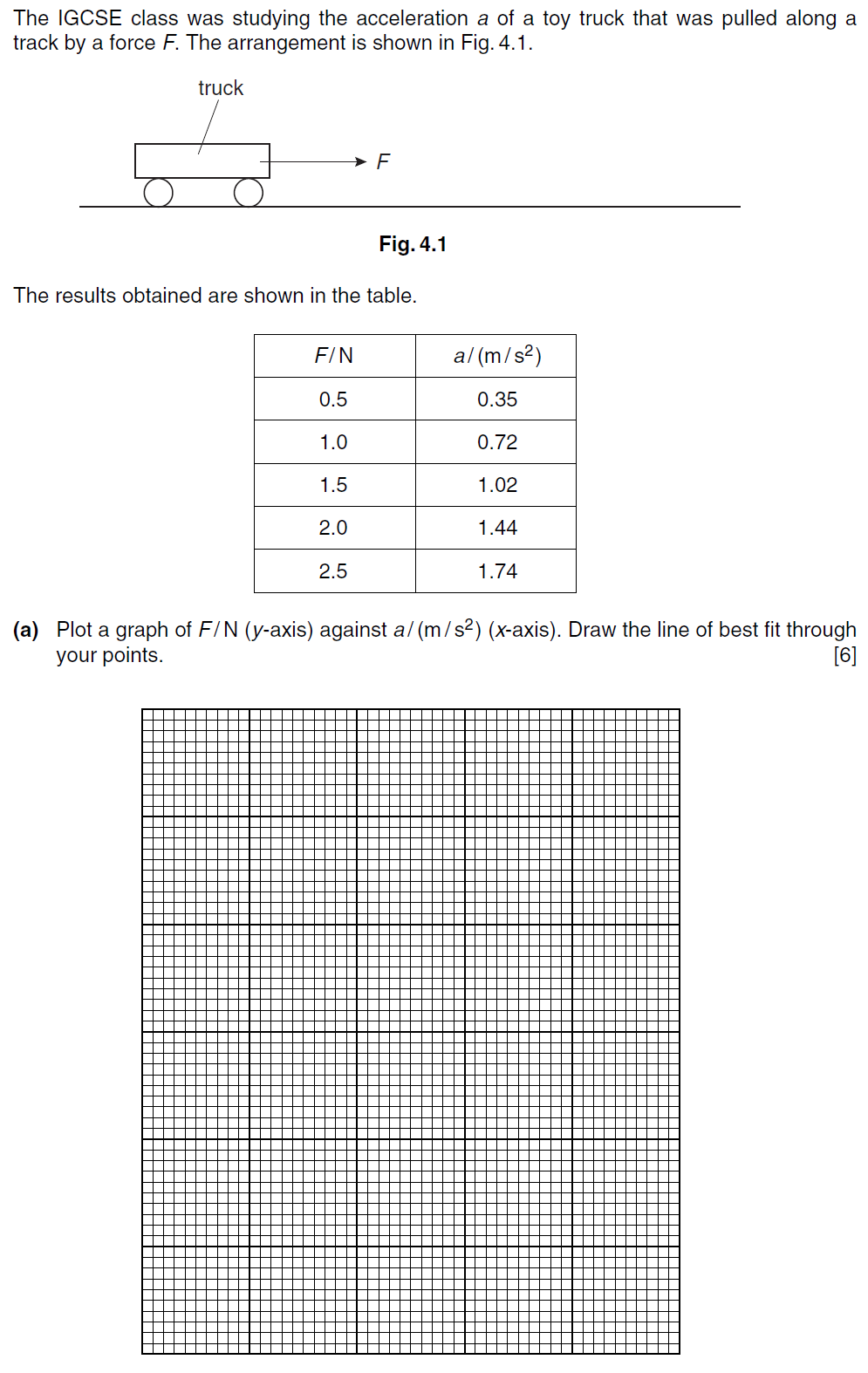
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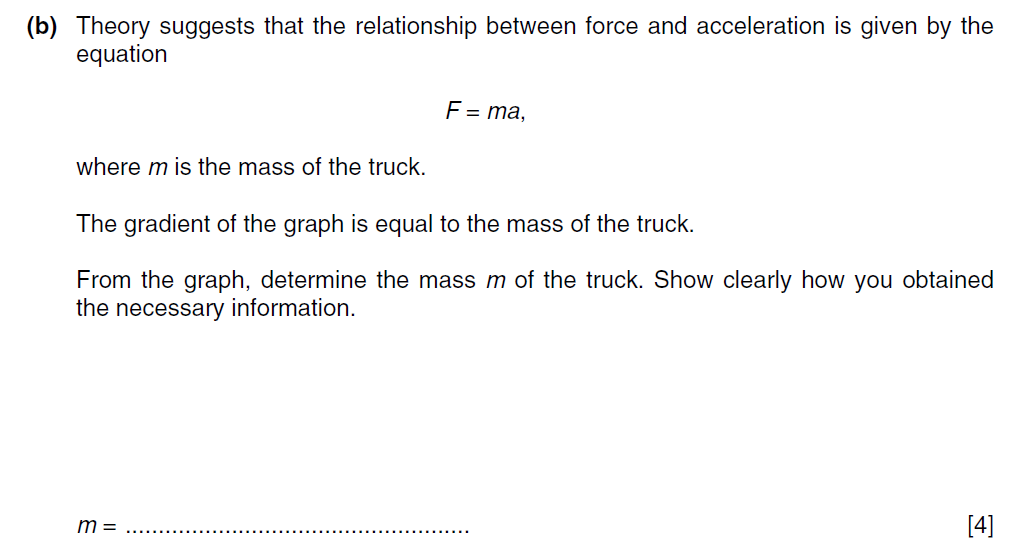
b) Give 3 examples each of vector quantities and scalar quatities

|  |  |
| --- | --- |
| **Vector Quantity** | **Scalar Quantity** |
|  |  |
|  |  |
|  |  |

[5]

4.





5.

