MASS CALCULATIONS

Pearson Edexcel - Thursday 8 November 2012 - Paper 2 (Calculator) Higher Tier

1.

13 The diagram shows a solid triangular prism.
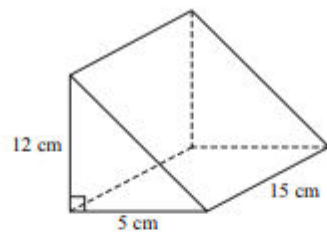
Diagram **NOT**
accurately drawn

12 cm

15 cm

5 cm

The prism is made from metal.
The density of the metal is 6.6 grams per cm³.

Calculate the mass of the prism.

.... grams

(Total for Question 13 is 3 marks)

Pearson Edexcel - Wednesday 9 November 2011 - Paper 3 (Non-Calculator) Higher Tier
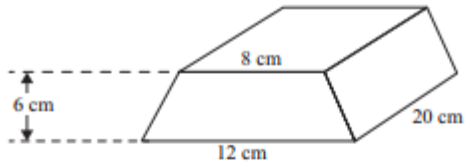
2.

16.

8 cm

6 cm

12 cm

20 cm

Diagram **NOT**
accurately drawn

The diagram shows a solid prism made from metal.
The cross-section of the prism is a trapezium.

The parallel sides of the trapezium are 8 cm and 12 cm.
The height of the trapezium is 6 cm.
The length of the prism is 20 cm.

The density of the metal is 5 g/cm^3.

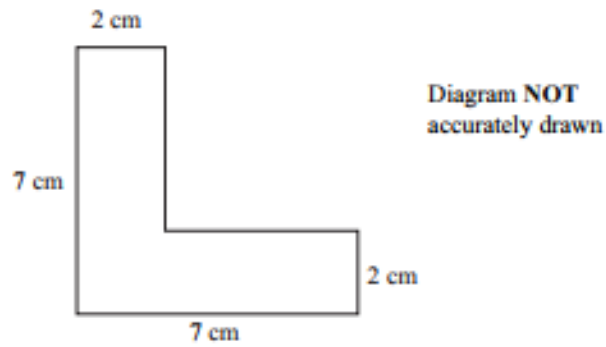Calculate the mass of the prism.
Give your answer in kilograms.

.... kg

(Total 5 marks)

Pearson Edexcel - Monday 6 June 2011 - Paper 3 (Non-Calculator) Higher Tier

3.

10.

2 cm

Diagram **NOT**
accurately drawn

7 cm

2 cm

7 cm

The diagram shows the cross-section of a solid prism.
The length of the prism is 2 m.

The prism is made from metal.
The density of the metal is 8 grams per cm³.

Work out the mass of the prism.

....

(Total 5 marks)

23. **A** and **B** are two solid shapes which are mathematically similar.
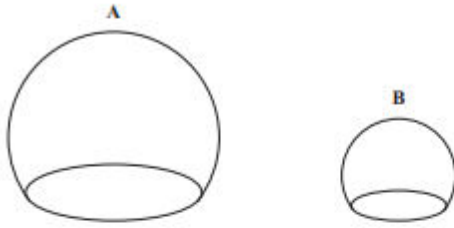The shapes are made from the same material.

A

B

Diagram **NOT**
accurately drawn

The surface area of **A** is 50 cm^2.
The surface area of **B** is 18 cm^2.

The mass of **A** is 500 grams.

Calculate the mass of **B**.

.... grams

(Total 4 marks)

AQA GSCE – Tuesday 12 June 2018 – Paper 3 (Calculator) Higher Tier

5.

21 The mass of an ornament is m grams.

The height of the ornament is h centimetres.

m is directly proportional to the cube of h.

$m = 1600$ when $h = 8$

21 (a) Work out an equation connecting m and h.

[3 marks]

_____

_____

_____

_____

_____

Answer _____

21 (b) Work out the mass of an ornament of height 12 centimetres.

[2 marks]

_____

_____

_____

Answer _____ grams

6.

20   This sign shows when a lift is safe to use.

> Total mass of people must be 450 kg or less

Ben and some other people are in the lift.
Their total mass is 525 kg to the nearest 5 kg

Ben gets out.
He has a mass of 78 kg to the nearest kg

Is the lift now safe to use?
You **must** show your working.

[4 marks]

_____

_____

_____

_____

_____

_____

Answer _____