

The PiXL Club

PARTNERS IN
EXCELLENCE

Practice Paper

Produced for the following syllabus

5384F/12F

Edexcel GCSE

Mathematics (Modular) – 2381

Paper 12 (Calculator)

Foundation Tier

Unit 3



June 2010

This paper is one of two produced post the non-calculator paper.

It is our best guess at what the calculator paper might look like.

It should be stressed that it is far more problematic to guess the shape of this paper than might normally be the case. We have a very limited number of real past papers to take into account.

We offer this paper as a service, but make no great claims as to its accuracy .

Time: 1 hour

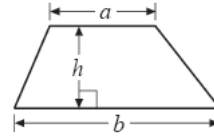
Marks: 60

GCSE Mathematics

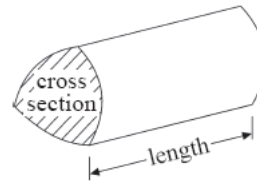
Formulae: Foundation Tier

**You must not write on this formulae page.
Anything you write on this formulae page will gain NO credit.**

Area of trapezium = $\frac{1}{2}(a+b)h$



Volume of prism = area of cross section \times length



Question 1

A museum has these charges.

Adult Ticket	£2.50
Child Ticket	£1.25
Family Ticket (2 adults and 3 children)	
£6.50	

Mr and Mrs Iqbal and their three children visit the museum.

Work out how much they will save by buying one family ticket rather than 5 separate tickets.

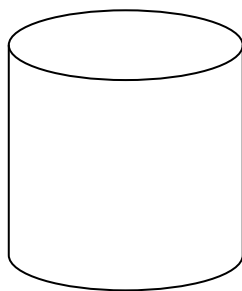
£

(Total 4 marks)

Question 2

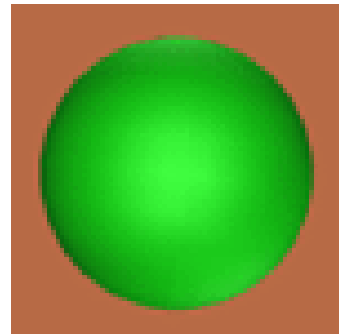
Write down the name of each of these two 3-D shapes.

(i)



(i)

(ii)

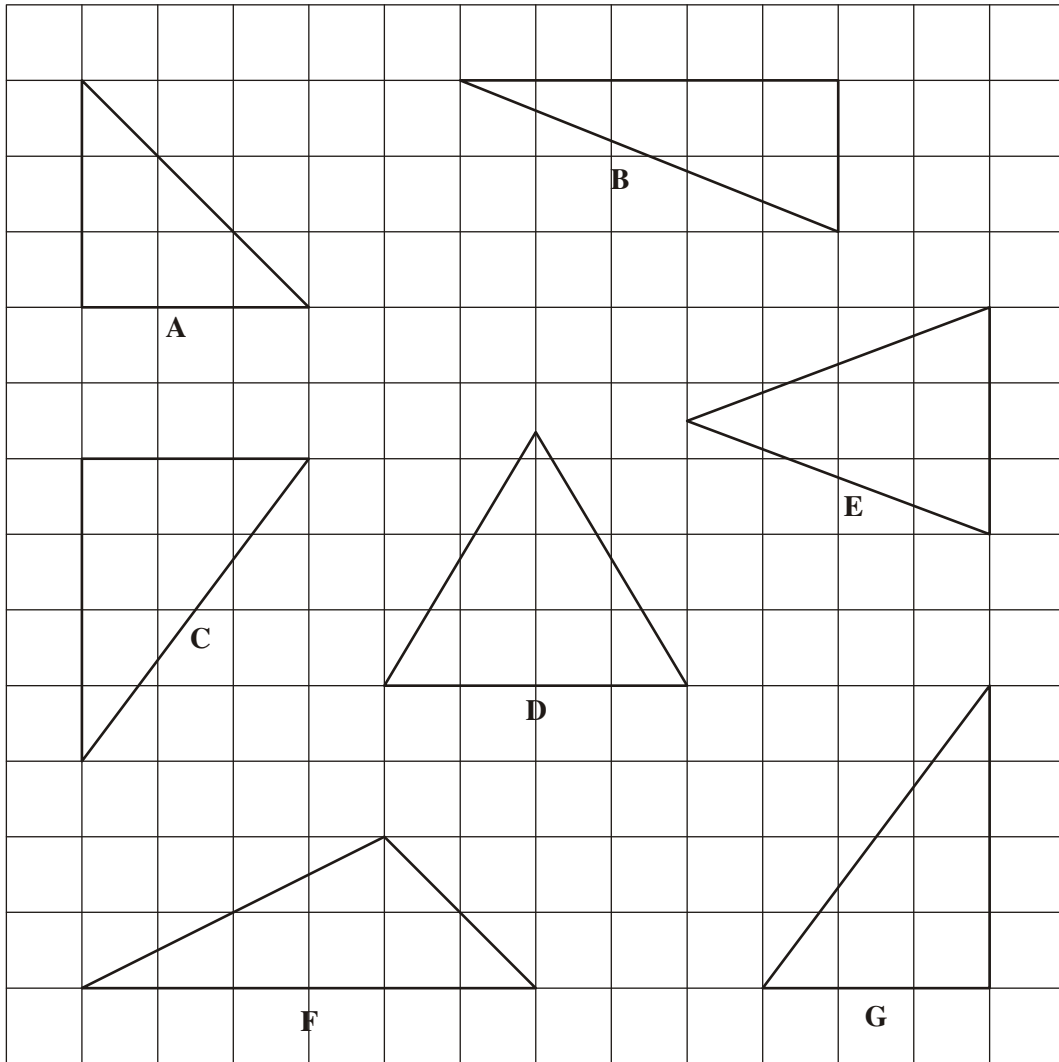


(ii)

(Total 2 marks)

Question 3

Here are 7 triangles.



(a) Write down the letter of the triangle that is

(i) equilateral,

.....

(ii) both isosceles **and** right-angled.

.....

(2)

(b) Write down the letters of the pair of congruent triangles.

..... and.....

(1)

(Total 3 marks)

Question 4

(a) Work out $\frac{1}{4}$ of 48

.....
(1)

(b) Work out $\frac{3}{5}$ of 100

.....
(2)

Question 5

Tania went to Italy.
She changed £325 into euros (€).

The exchange rate was £1 = €1.68

(a) Change £325 into euros (€).

€
(2)

When she came home she changed €117 into pounds.

The new exchange rate was £1 = €1.50

(b) Change €117 into pounds.

£
(2)

(Total 4 marks)

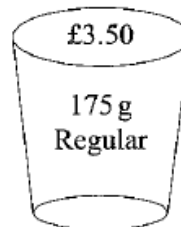
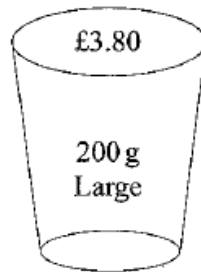
Question 6

Sam bought a car for £700
He sold the car for a 20% profit.

Work out how much Sam sold his car for.

.....
(3 marks)

Question 7



A Large tub of popcorn costs £3.80 and holds 200 g.
A Regular tub of popcorn costs £3.50 and holds 175 g.

Rob says that the 200 g Large tub is the better value for money.
Linda says that the 175 g Regular tub is the better value for money.

Who is correct?

.....

Explain the reasons for your answer.
You must show all your working.

(Total 2 marks)

Question 8

Here are two readings from a gas meter.

0	1	9	6	2
---	---	---	---	---

January

0	2	1	5	9
---	---	---	---	---

April

The difference in the meter readings gives the number of units of gas used.

- (a) Work out the number of units of gas used.

.....
(1 mark)

The cost of each unit of gas is 21p.

- (b) Work out the cost of the gas used between January and April.
Give your answer in pounds (£).

.....
(3 marks)

Question 9

The equation

$$x^3 - x = 30$$

has a solution between 3 and 4

Use a trial and improvement method to find this solution.

Give your answer correct to 1 decimal place.

You must show **all** your working.

$x = \dots\dots\dots$

(Total 4 marks)

Question 10

Samir wrote down the temperatures in 6 different cities at midnight one day.

City	Temperature
Manchester	-1 °C
Edinburgh	-6 °C
London	3 °C
Aberdeen	-11 °C
Birmingham	2 °C
Glasgow	-8 °C

(a) Write down

(i) the **highest** temperature,

.....°C

(ii) the **lowest** temperature.

.....°C

(2)

(b) Work out the difference in the temperatures between

(i) Manchester and Birmingham,

.....°C

(ii) Edinburgh and Glasgow.

.....°C

(2)

At 10 a.m. the next morning, the temperature in Glasgow had risen by 5 °C.

(c) Work out the temperature in Glasgow at 10 a.m. the next morning.

.....°C

(1)

(Total 5 marks)

Question 11

The diameter of a circle is 15 centimetres.

Work out the circumference of the circle.

Give your answer, in centimetres, correct to 1 decimal place.

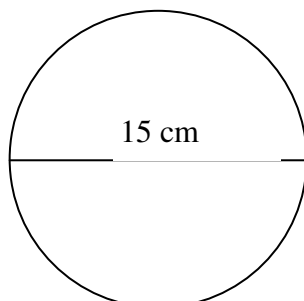


Diagram **NOT**
accurately drawn

.....
(3 marks)

Question 12

Simplify

(i) $x^4 \times x^5$

.....

(ii) $\frac{p^8}{p^3}$

.....

(iii) $3s^2t^3 \times 4s^4t^2$

.....

(iv) $(q^3)^4$

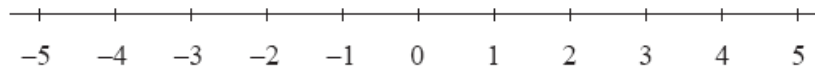
.....

(5)

Question 13

(a) $x < -2$

Show this inequality on the number line.



(2)

Question 14

(a) Solve $x - 6 = 11$

$x = \dots\dots\dots$
(1)

(b) Solve $4y + 2 = 9$

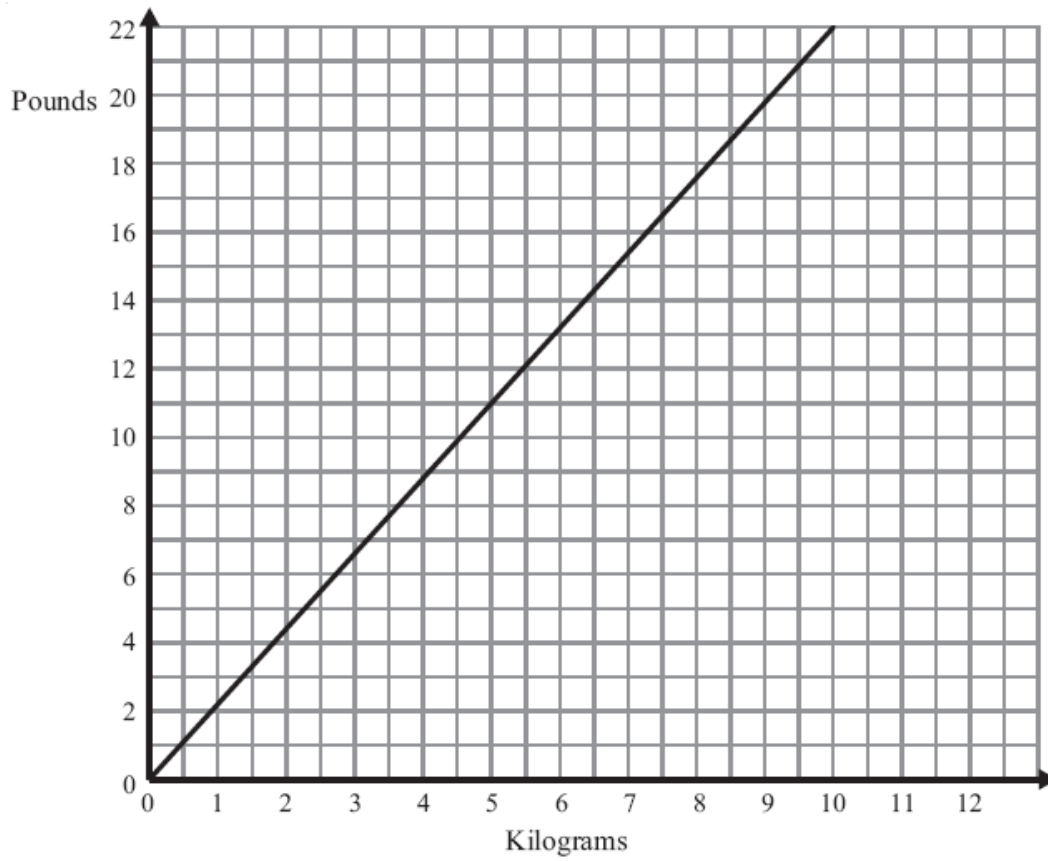
$y = \dots\dots\dots$
(2)

(c) Solve $2(w + 1) = 10$

$w = \dots\dots\dots$
(2)

(Total 5 marks)

Question 15



The conversion graph above can be used for changing between kilograms and pounds.

(a) Use the graph to change 22 pounds to kilograms.

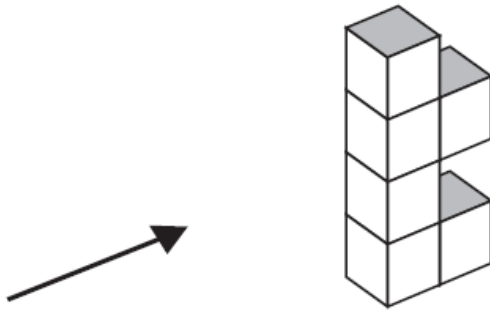
..... kg
(1)

(b) Use the graph to change 5 kilograms to pounds.

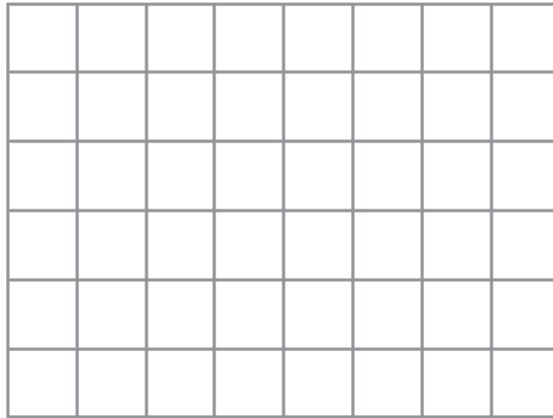
..... pounds
(1)

Question 16

The diagram shows a solid object made of 6 identical cubes.

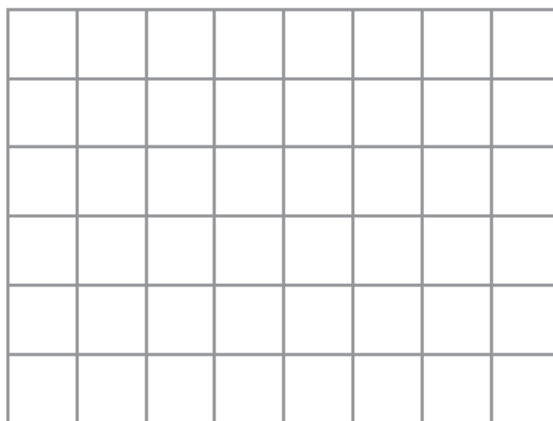


- (a) On the grid below, draw the side elevation of the solid object from the direction of the arrow.



(2)

- (b) On the grid below, draw the plan of the solid object.

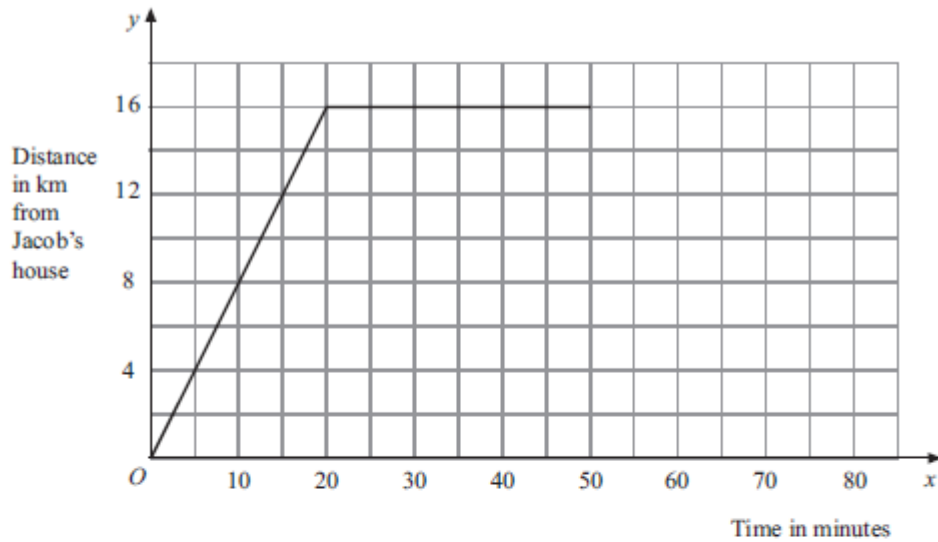


(2)

(Total 4 marks)

Question 17

Here is part of a travel graph of Jacob's journey from his house to the library.



- (a) How far is Jacob's house from the library?

..... km
(1)

- (b) Work out Jacob's speed for the first 20 minutes of his journey.
Give your answer in km/h.

..... km/h
(2)

Jacob spends 30 minutes at the library.
He then travels back to his house at a steady speed of 64 km/h.

- (c) Complete the travel graph.

(2)

(Total 5 marks)