OCR
RECOGNISING ACHIEVEMENT

M2

GENERAL CERTIFICATE OF SECONDARY EDUCATION

MATHEMATICS C (GRADUATED ASSESSMENT)

B272A

MODULE M2 (SECTION A)

OCE/13022

Candidates answer on the Question Paper

OCR Supplied Materials:
None

Other Materials Required:
- Geometrical instruments
- Tracing paper (optional)

Monday 21 June 2010
Afternoon

Duration: 30 minutes

B2722A

Candidate Forename		Candidate Surname	

Centre Number						Candidate Number				

INSTRUCTIONS TO CANDIDATES

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Show your working. Marks may be given for a correct method even if the answer is incorrect.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your Candidate Number, Centre Number and question number(s).

INFORMATION FOR CANDIDATES

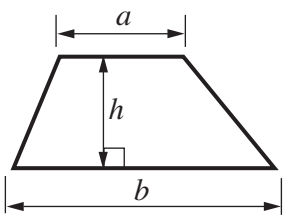
- The number of marks is given in brackets **[ ]** at the end of each question or part question.
- The total number of marks for this Section is **25**.
- This document consists of **8** pages. Any blank pages are indicated.

WARNING

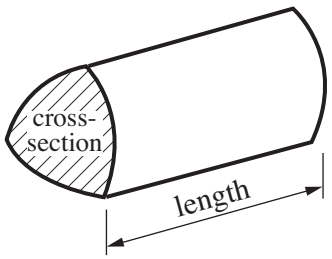
No calculator can be used for Section A of this paper

Formulae Sheet

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

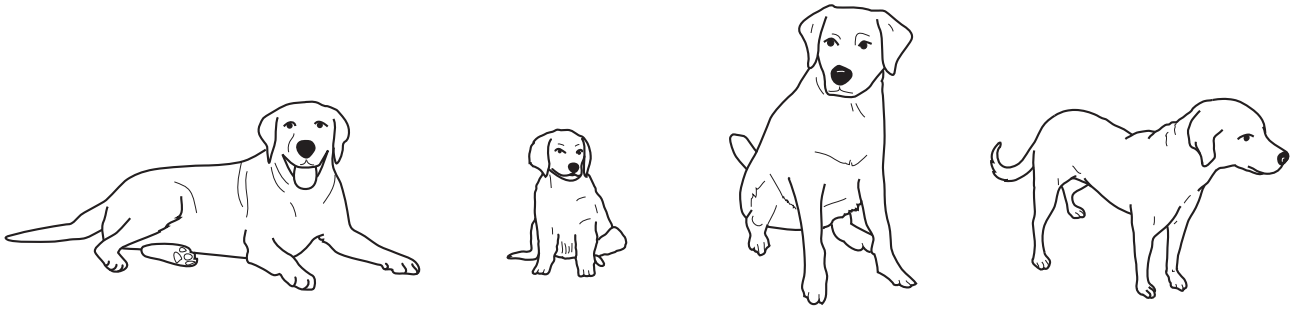


Volume of prism = (area of cross-section) × length



PLEASE DO NOT WRITE ON THIS PAGE

1 Here are four dogs and their weights.



(a) (i) How much do Simba and Pippy weigh altogether?

(a)(i) ..... kg **[1]**

(ii) How much more does Charlie weigh than Max?
Give your answer in grams.

(ii) .....grams **[2]**

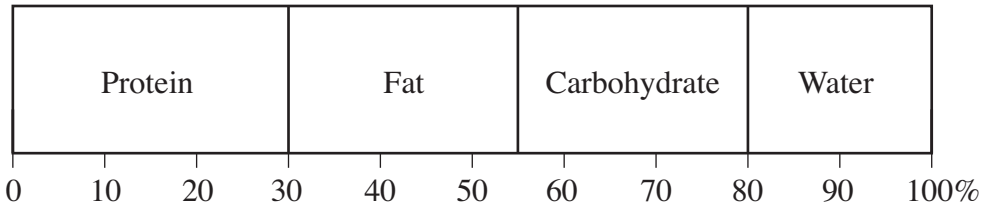
(b) Max is taken to the vets.

Complete the bill.

Happy Vets	
Vaccination	£ 29·99
Microchip	£ 15·50
Nail Clip	£ 7·95
Total	£ ·

[2]

(c) This percentage bar shows information about dog food.



(i) What percentage of the dog food is Protein?

(c)(i) .....% **[1]**

(ii) Sue says:

80% of the dog food is Carbohydrate.

Explain why she is wrong.

.....

..... **[1]**

(iii) The dog food contains 25% Fat.

Write 25% as a fraction.

(iii) ..... **[1]**

(iv) A tin contains 800 g of dog food.

Work out 25% of 800 g.

(iv) ..... g **[1]**

(d) Pippy eats 6 dog biscuits each day.

How many dog biscuits will she eat in 14 days?

(d) ..... **[2]**

(e) Robert walks his dog, Max, each day.
He records the number of kilometres he walks for each of 11 days.

12 1 5 4 12 4 2 6 5 4 8

For these distances, work out

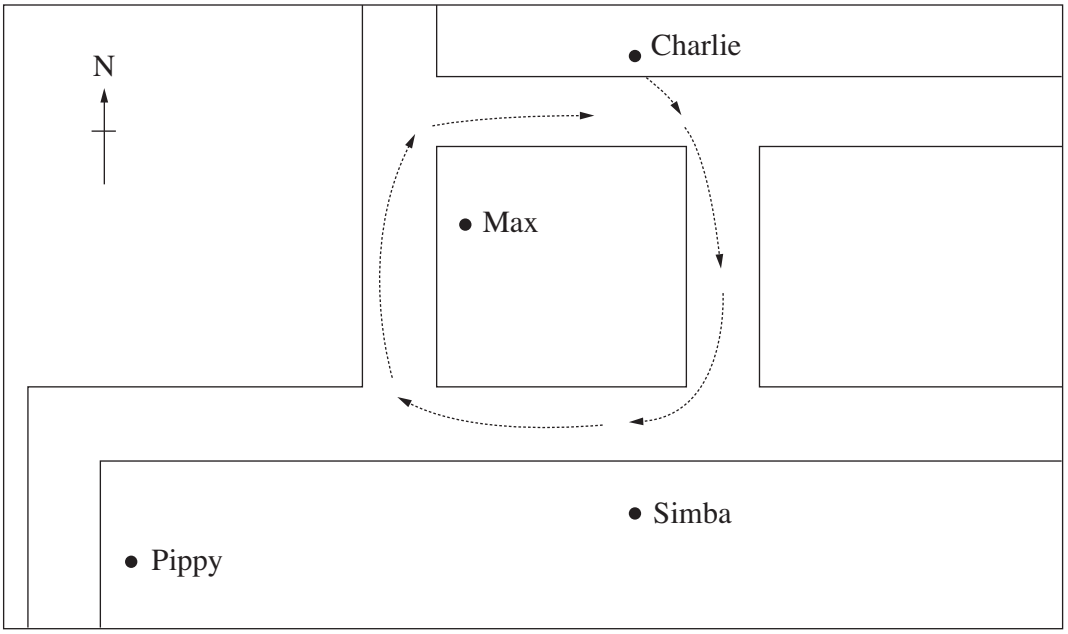
(i) the median,

(e)(i) ..... km **[2]**

(ii) the mode.

(ii) ..... km **[1]**

(f) This diagram shows where the dogs live.



(i) Use compass directions to complete these sentences.

Simba lives ..... of Charlie. **[1]**

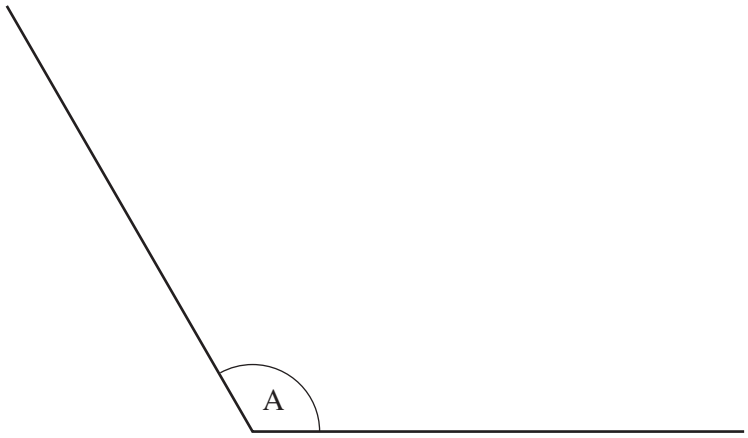
Max lives ..... of Pippy. **[1]**

(ii) When Charlie is taken for a walk, he goes in the direction of the arrows.

Does he walk in a clockwise or an anticlockwise direction?

(f)(ii) ..... **[1]**

2 **(a)**



(i) Measure angle A.

(a)(i) ..... ° **[1]**

(ii) What name is given to this type of angle?

(ii) ..... **[1]**

(b) Draw an angle of 35° at B.

One line has been drawn for you.

B **[1]**

(c) Complete these sentences.

An angle smaller than 90° is called ..... **[1]**

An angle bigger than 180° is called ..... **[1]**

3 **(a)** Here are the first four numbers in a sequence.

17 14 11 8

(i) Write down the next number in the sequence.

(a)(i) ..... **[1]**

(ii) Explain how you worked out your answer.

..... **[1]**

(b) Here are the first five numbers in another sequence.

5 10 20 40 80

Describe the rule for finding the next number.

.....

..... **[1]**

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