

KULLEĠĠ SAN BENEDITTU
Boys Secondary School, Kirkop

D

HALF-YEARLY EXAMINATIONS – FEBRUARY 2012

FORM 4

MATHEMATICS Scheme D

TIME: 30 mins

Non Calculator Paper

Question	1	2	3	4	5	6	7	8	9	Total
Mark										

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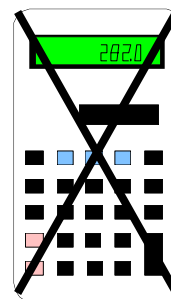
NAME AND SURNAME: _____

CLASS: _____

INSTRUCTIONS TO CANDIDATES:

Read all the questions carefully before you start answering.

- Answer all questions.
- This paper carries 25 marks.
- **Calculators, protractors** and other mathematical instruments are **NOT ALLOWED**.
- On your desk you should have nothing except for **pen, pencil, ruler** and the **examination paper**.
- You are not required to show your working. However, space for working is provided if you need it.



1. Write the following numbers in words.

a) 13,508 = _____

b) 20,342 = _____

(2 marks)

2. Work out the value of the following:

a) $-2 \times -5 =$ _____

c) $-5 - (-3) =$ _____

b) $9 \div (-3) =$ _____

d) $(-4) + (-8) =$ _____

(4 marks)

3. Look at the following numbers:

49 56 31 15 64

From this set of numbers choose:

a) A multiple of 8 : _____

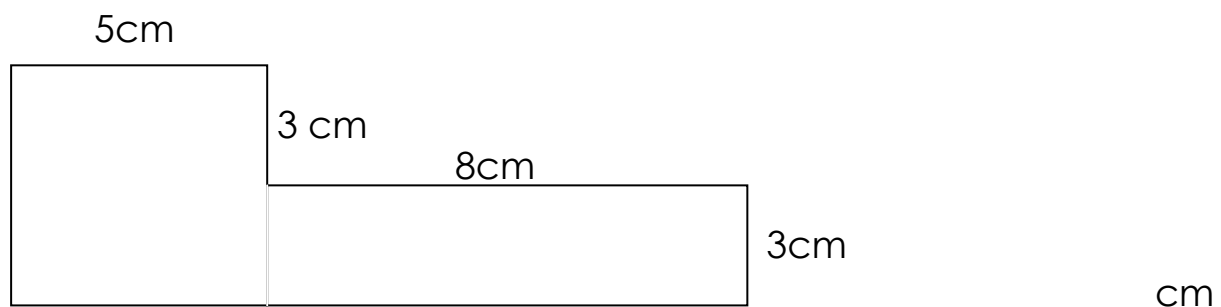
b) A prime number: _____

c) A square number: _____

d) An odd number: _____

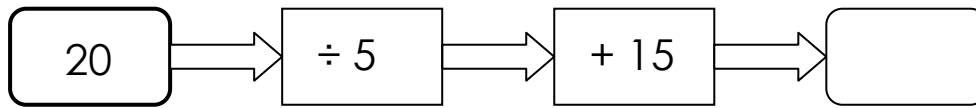
(4 marks)

4. Find the perimeter of the following shape.



(2 marks)

5. Complete the following number machines



(1 mark)

6. Work out the value of the following

a) $17 \times 9 =$ _____

b) $4.8 \times 7 =$ _____

c) $8.6 \div 2 =$ _____

(3 marks)

7. Write down the next two terms of the following sequences

1 , 4, 9 , 16, _____ , _____

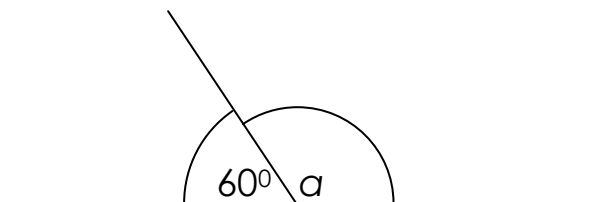
(2 marks)

8. Write down the following fraction in its lowest terms

$$\frac{100}{150} = \frac{\boxed{}}{\boxed{}}$$

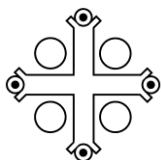
(1 mark)

9. Find the size of the angle marked a



_____°

(1 mark)



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HALF-YEARLY EXAMINATIONS – FEBRUARY 2012

FORM 4

MATHEMATICS Scheme D

TIME: 1hr 40mins

Main Paper

Question	1	2	3	4	5	6	7	8	9	10	11	12	Main	NC	Global Mark
Max. Mark	4	10	10	10	4	5	8	4	5	7	8	5	80	20	100
Mark															

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NAME AND SURNAME: _____ **CLASS:** _____

INSTRUCTIONS TO CANDIDATES:

Read all the questions carefully before you start answering.

- Answer all questions.
- This paper carries 80 marks.
- Calculators and mathematical instruments are allowed but all necessary working must be shown.

1. In a school with a population of 120 people of which there are $\frac{2}{3}$ are students, $\frac{1}{4}$ teachers and the rest clerical staff. Write down the number of students and the number of clerical staff.

Students _____

Clerical Staff _____

(4 marks)

2. Complete the following table.



Percentage	Fraction	Decimal
20%		
	$\frac{1}{2}$	
		0.75
15%		
		0.6

(10 marks)

3. **Underline** the correct answer in each of the following statements



- a) An **equilateral** triangle has (2 , 3 , 4) sides equal and (2, 3 , 4) angles equal.
- b) A **square** has (2, 3, 4) equal sides and the angles are all equal to (90° , 180° , 360°)
- c) A **rectangle** has (one, opposite, four) sides equal and parallel.
- d) A **trapezium** has (all, no, opposite) sides equal. However it has a pair of opposite sides (equal, parallel).
- e) The sum of angles **at a point** is equal to (180° , 270° , 360°).
- f) The sum of angles **on a straight line** is equal to (180° , 270° , 360°).
- g) Angles **in a triangle** add up (180° , 270° , 360°).

(10 marks)

4. Use the given number machine

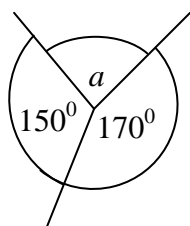


To find the value of

- a) y when $x = 3$
- b) y when $x = -5$
- c) x when $y = 40$
- d) x when $y = 70$

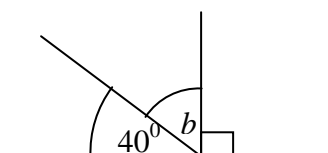
(2,2,3,3 marks)

5. Work out the value of the angle marked with the letters, and underline the correct reason for each answer.



$$a = \underline{\hspace{2cm}}^{\circ}$$

(Angles on a straight line, angles at a point, angles in a triangle)



$$b = \underline{\hspace{2cm}}^{\circ}$$

(Angles on a straight line, angles at a point, angles in a triangle)

(2,2 marks)

6. During a sale, the price tag of a suit stated:

- a) How much did the person buying this suit save?



Ans €

- b) Write the value obtained in (a) as a percentage of the price it was before, giving your answer to the nearest whole number.

Ans %

(2,3 marks)

7. Find the value of the following

a) $(-2) - (-3) =$ _____

c) $(-38) \times 3 =$ _____

b) $(-3) \div (-1) =$ _____

d) $(-50) + (-30) =$ _____

(8 marks)

8. During a football match, there were 12,593 spectators. Round this number



a) To the **nearest ten** \approx _____

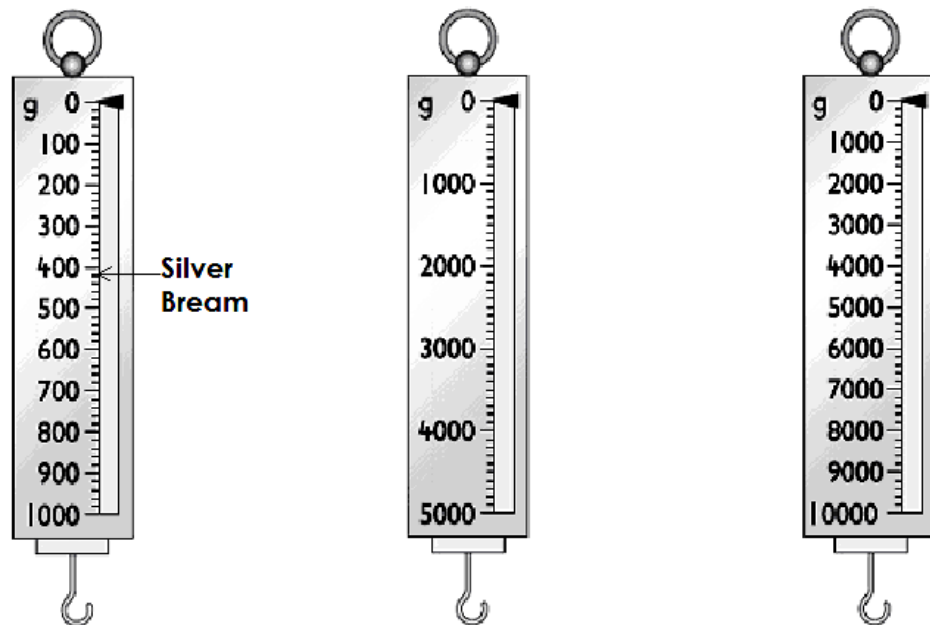
b) To the **nearest Hundred** \approx _____

c) To the **nearest Thousand** \approx _____

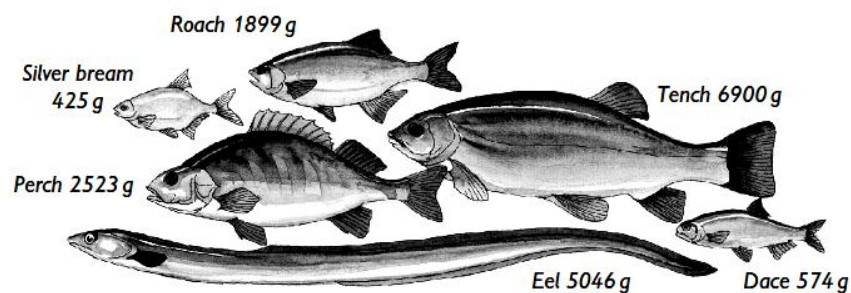
d) To the **nearest ten thousand** \approx _____

(4 marks)

9. Look at these three scales. They are all different from each other

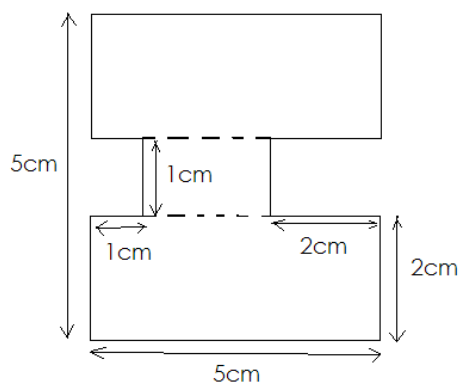


On the above scales, mark these record fish and show their weight, the first one has been done for you.



(5 marks)

10. Find the area and perimeter of the given shape



Area = _____ cm^2

Perimeter = _____ cm

(4,3 marks)

11. Fill in to **change** the units of the following:

$$18.24 \text{ m} = 18.24 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ cm}$$

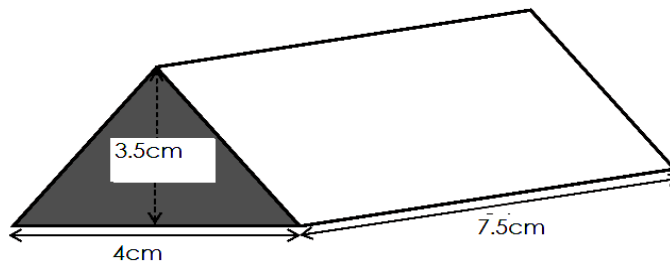
$$0.003 \text{ Kg} = 0.003 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ g}$$

$$4890 \text{ mm} = 4890 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ m}$$

$$2890 \text{ ml} = 2890 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ litre}$$

(8 marks)

12. A tent has the following shape and dimensions



- a) Use the equation **$A = \frac{1}{2}bh$** work out the **AREA** of the triangle.

_____ cm^2

- b) Using the equation **Volume = area x length** determine the volume of this tent.

_____ cm^3

- c) The volume of the tent correct to **the nearest whole number** is _____ cm^3 .

(2,2,1 marks)