



**ST. CLARE COLLEGE
SECONDARY SCHOOL - PEMBROKE
HALF-YEARLY EXAMINATIONS FEBRUARY 2015**

Form 1

MATHEMATICS

TIME: 1h 30 min

MAIN PAPER

LEVELS 7 – 8

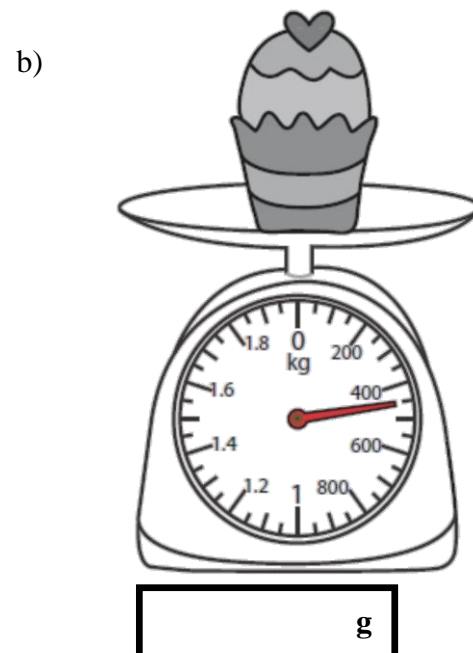
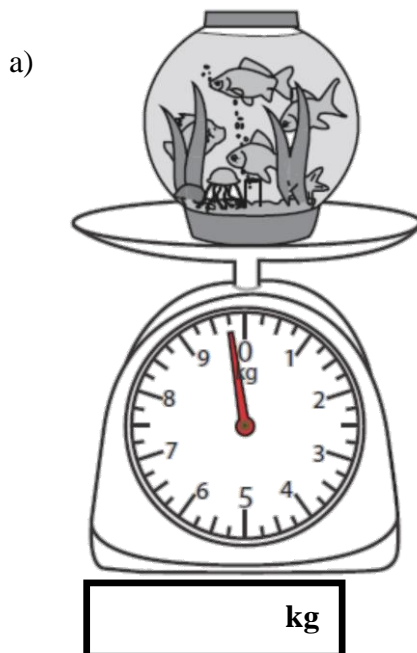
Question	1	2	3	4	5	6	7	8	9	10	11	12	Total Main	Non-Calculator	Global Mark
Mark															

DO NOT WRITE ABOVE THIS LINE

Name: _____ **Class:** _____

- Answer all questions.
- This paper carries 55 marks.
- Calculators and other mathematical instruments are allowed but all necessary working must be shown.

1. Read the following scales.



[2 marks]

2. Antonella wants to record a film which begins at 1.15 pm and finishes at 3.30 pm.

a) How long does the film last? **Ans:** _____

b) How much time is left on a 3-hour tape? **Ans:** _____

[2 marks]

3. Fill in the blanks.

a) 5 km = _____ cm

b) 3.75 kg = _____ g

c) 4080 seconds = ____ hours ____ minutes

[3 marks]

4. Two shops sell the same product.

In shop A, you buy 1 and get the second free.

In shop B, you buy 2 and get the third free.


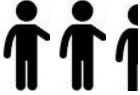







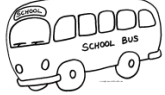

Which shop has the best offer? Show your working to give an explanation for your answer.




Ans: Shop ____ has the best offer.

[3 marks]

5. The following tables show the method of travelling of two primary school classes that are by **bus**, by **car** or on **foot**.

Method of travelling	Children of Yr 1	Method of travelling	Children of Yr 2
			
			
			

↑

 = 2 children

a) 19 Year 1 children go to school on foot. Complete the pictogram in the space shown with ↑.

b) Which is the most popular method of travelling in:

i) Year 1? **Ans:** _____ ii) Year 2? **Ans:** _____

c) In which class is it more likely that children live close to the school? Why?

Ans: Year _____ **Reason:** _____

[4 marks]

6. Johnny bought 36 metres of wire fencing to put around his rectangular farm. The sides of the rectangle he formed are unit lengths.

a) Explain why Johnny could make a rectangular field 14 metres by 4 metres.

b) Write down **five** more different dimensions of the fence that Johnny could make for his rectangular field.

Ans: ____ m by ____ m; ____ m by ____ m; ____ m by ____ m;
____ m by ____ m; ____ m by ____ m

c) Which of the sizes mentioned in part b) would give the **biggest area**?

Ans: _____

[5 marks]

7. What do the numbers in each set have in common?

a) 48, 102, 56 and 1004 They are _____

b) 18, 36, 81 and 99 They are _____

c) 25, 81, 100 and 144 They are _____

d) 1, 2, 3, 4, 6 and 12 They are _____

e) 21, 33, 105 and 1247 They are _____

[5 marks]

8. a) Fill in the blanks:

i) An **acute angle** is less than _____° and more than _____°.

ii) A **reflex angle** is less than _____° and more than _____°.

iii) _____ add up to 360°.

b) A rectangle is not a square but a square is a rectangle. Explain why.

[5 marks]

9. a) In a year, how many months have **AT LEAST**:

i) 31 days? **Ans:** _____ ii) 30 days? **Ans:** _____

iii) 28 days? **Ans:** _____

b) Jane was born in the year 2013. How old will she be on her birthday in 2015?

Give your answer in days.

Ans: _____ days

c) One alarm clock is set to ring every 6 minutes whilst a second alarm clock is set to ring every 9 minutes. The alarms are put on at 10 o'clock in the morning. At what time will they sound together for the first time?

Ans: _____

[6 marks]

10. These certificates show the marks obtained by Joanne and David in their last exams.

Joanne	
Maths	85
Maltese	75
English	90
Religion	85
Social Studies	95

David	
Maths	90
Maltese	95
English	70
Religion	75
Social Studies	75

a) Work out the median, mean and mode of Joanne's marks.

Ans: Median = _____ Mean = _____ Mode = _____

b) Work out the median, mean and mode of David's marks.

Ans: Median = _____ Mean = _____ Mode = _____

c) Who got the best result? Why?

[6 marks]

11. a) Work out and simplify the following. **Show all your working.**

i) $\frac{13}{20} - \frac{7}{80}$

Ans: _____

ii) $\frac{16}{20} \times \frac{25}{80}$

Ans: _____

b) Change the answer in a i) to a percentage.

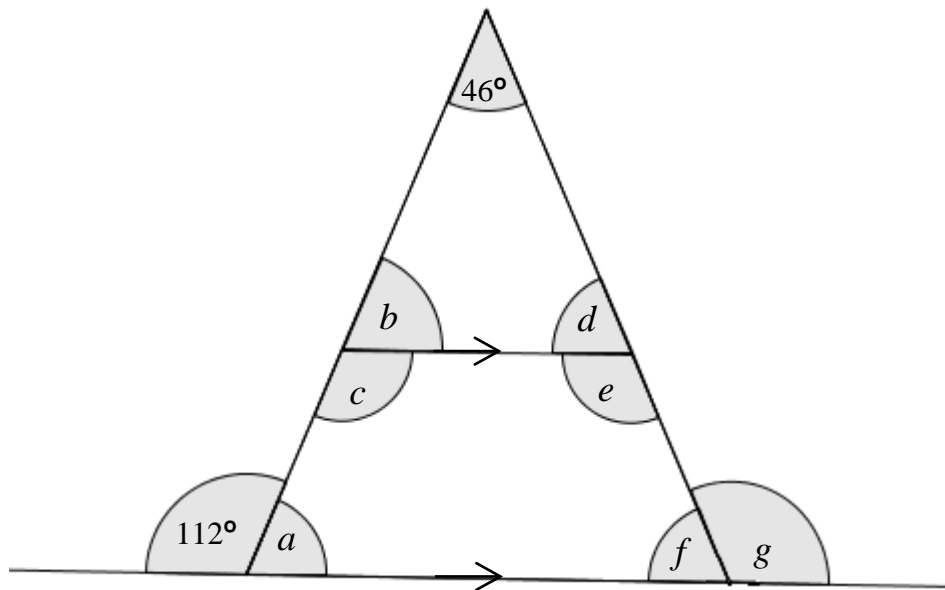
Ans: _____

c) Change the answers in a ii) to a decimal.

Ans: _____

[6 marks]

12. Work out the missing angles giving a reason for each one of them.



$a =$ _____ Reason: _____

$b =$ _____ Reason: _____

$c =$ _____ Reason: _____

$d =$ _____ Reason: _____

$e =$ _____ Reason: _____

$f =$ _____ Reason: _____

$g =$ _____ Reason: _____

[8 marks]

END OF PAPER