

**GPLMS MATHEMATICS**

**NOVEMBER 2014 EXAMINATION  
GRADE 7**

**DURATION: 90 MINUTES  
2014**

**DATE: \_\_ NOVEMBER**

**SURNAME:**

**NAME:**

**DATE OF BIRTH:**

**SCHOOL:**

**PROVINCE:**

**NAME OF TEACHER:**

**Instructions to Learners:**

1. Answer all questions
2. Write neatly and show all your calculations
3. No Calculator allowed
4. Duration 2 hours (120 minutes)

**SECTION A**

There are **FIVE** multiple choice questions in Section A. For each question **FOUR** possible answers are given and only **ONE** answer is correct. For each multiple choice question select answer and indicate your choice by means of a **CIRCLE** on the corresponding letter.

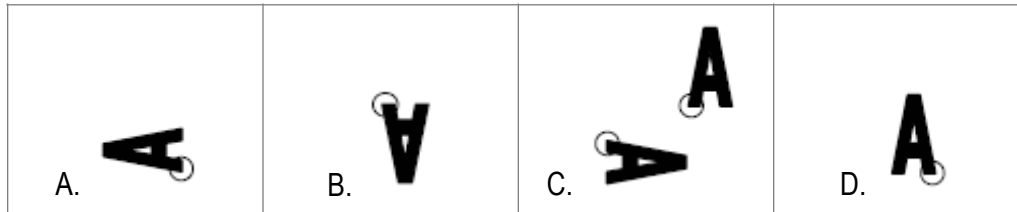
**Example:**  $7 \times 15 = \underline{\hspace{2cm}}$

- A 105      B 110      C 115      D 120

**Question 1**

**(5marks)**

1. The letter A is rotated  $180^\circ$  about O. What will the position of A be now?



2. Choose the statement:

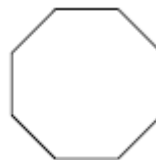
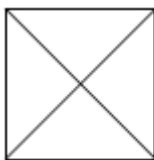
$7^3 =$

- A.  $7 \times 3$       B.  $7 + 7 + 7$       C.  $7 \times 7 \times 7$       D.  $3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3$

3. A factory manufactures dresses and shirts: 3 dresses are manufactured for every 4 shirts. In a week the factory produced a total of 420 dresses and shirts. How many of these were dresses?

- A. 180      B. 240      C. 140      D. 315

4. A square has 2 diagonals and a pentagon has 5. How many diagonals does a regular octagon have? (An octagon has 8 sides.)



- A.19                      B. 28                      C.16                      D. 24

5. Bus A leaves Gauteng at 10:00 and travels north at 50 km/h. Bus B leaves Gauteng at 12:00 along the same route at 70 km/h. At what time will bus B pass bus A?

- A. 11:30                      B. 15:00                      C. 18:00                      D. 17:00

**SECTION B: Answer ALL the questions**

**QUESTION 1**  
(marks)

(10)

1.1 Complete:

a.  $7\,342\,651 = (7\,000\,000) + (3 \times 100\,000) + (\text{_____}) + 2\,000 + 651$   
(1)

b. Round off 59 673 to the nearest 10 000.: \_\_\_\_\_  
(1)

c. Simplify:  $10 + 4 \div 2 =$  \_\_\_\_\_  
(1)

d. Fill in the correct operational sign:  $10 \text{ _____ } 2 + 4 = 9$   
(1)

e.  $(14 \div 2) + (51 - 48) =$  \_\_\_\_\_  
(1)

f.  $2^3 =$  \_\_\_\_\_  
(1)

g. Using Prime factors determine the following:  $\sqrt{16} =$   
(2)

- h. Write down the multiples of 7 between 21 and 56.  
(1)
- i. Re-arrange the numbers from the smallest to the biggest. 4,5 ; 4,3 ; 4,01 ; 4,8  
\_\_\_\_\_

**QUESTION 2**  
marks)

(12

- 2.1 Fill < ; > or = in the space provided:  $\frac{2}{3}$        $\frac{1}{2}$   
(1)

2.2 Calculate:

a.  $\frac{2}{3} - \frac{1}{6}$  (Write your answer in the simplest form) (3)

b.  $2\frac{2}{3} + 1\frac{2}{5}$  (Leave your answer in improper form) (4)

c.  $5\frac{1}{3} \times \frac{3}{8}$  (2)

d.  $\frac{3}{4}$  of 28 (2)

**QUESTION 3**

(8 marks)

- 3.1 What is the place value of the underlined digit in 53486? \_\_\_\_\_  
(1)

3.2 Calculate:

a.  $6,5 - 2,34$  (2)

b.  $0,06 \times 0,3$  (2)

c.  $3,7 \times 1,4$  (3)

**QUESTION 4**  
marks)

(9)

4.1 Fill in <, > or =:

a. $-7$ _____ $- 8$ (1)	b. $-7$ _____ $- 8 + 1$ (1)
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4.2

Calculate:

a. $-18 - 13 =$ (1)	b. $8 + (-27) =$ (1)
c. $-75 - (-25) =$ (1)	
d. $24 = 3 \times r$ (2)	e. $14 + x = 16 - 8$ (2)

**QUESTION 5**  
marks)

(7)

5.1 Find the value of  $\Delta$  in the following equations:

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5.2

a.  $14 + \Delta = 16 - 8$   
(1)

b.  $24 = 3 \times \Delta$   
(1)

Insert brackets to make the number sentence  $18 + 12 \div 2 = 15$  true.  
(1)

5.3 a) Solve the following by inspection and check your solution: (4)

i.	$9z = 54$	Check:
ii.	$y - 4 = 12$	Check:

**QUESTION 6****(10 marks)**

1. Complete the flow diagram by indicate what both “a” and “b” will be below:

(2)

1

4

2

7

3

10

4

13

10

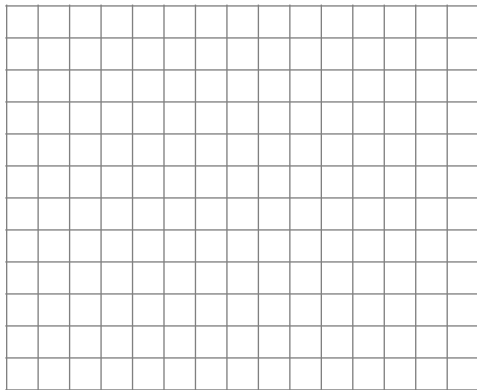
31

c) Write the rule of the above pattern:

(3)

2. Making patterns by sliding (translating), reflecting and turning (rotation):

<p>a. Two of the rectangles can be rotated to fit exactly onto the adjacent rectangles. Name the rectangles? (1)</p> <p style="text-align: center; margin: 10px 0;">A      B      C      D</p> <hr style="border: 1px solid black; margin-top: 10px;"/>	<p>b. What kind of transformation is illustrated below? (1)</p> <hr style="border: 1px solid black; margin-top: 10px;"/>
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Describe the translation which A to that of triangle B.

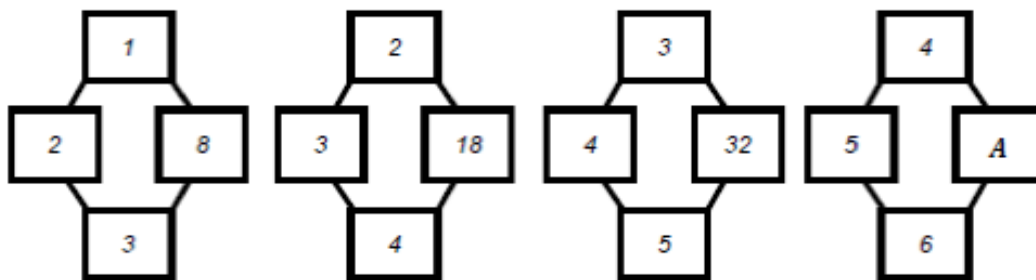
(2)

transformed (changed) the position of

triangle

3. What is the value of A in the fourth figure? A = \_\_\_\_\_

(1)



**QUESTION 7: DATA HANDLING**

**(26 marks)**

a) The table gives the number of learners in a Grade 7 class who come to school by bus over a period of 13 days.

Days	1	2	3	4	5	6	7	8	9	10	11	12	13
Number of learners	16	14	13	15	16	14	17	16	17	16	16	15	15

i. What is the mode (most frequent number)? \_\_\_\_\_ (1)

ii. Write the number of learners for the 13 days in ascending order: \_\_\_\_\_ (1)

iii. What is the median (middle-most number)? \_\_\_\_\_ (2)

iv. What is the range? \_\_\_\_\_ (1)

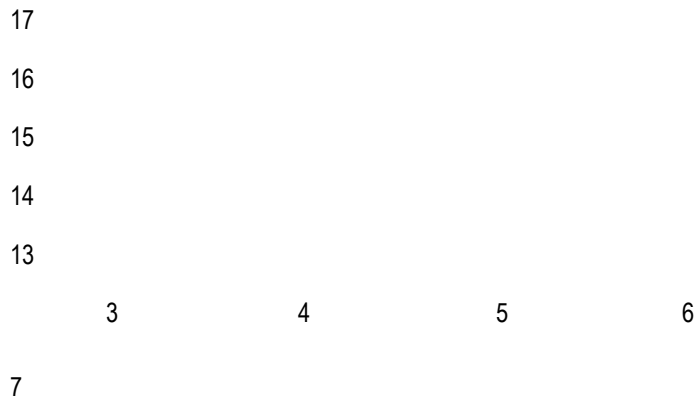
v. Calculate the mean (average)? Round your answer off to 1 decimal place. \_\_\_\_\_ (4)

vi. Display the above data for the following days in a frequency table: (6)

Days	Tally	Frequency
Day 3		
Day 4		
Day 5		
Day 6		
Day 7		

vii. Use the above frequency table and draw a bar graph on the given grid? \_\_\_\_\_ (5)





b. This is the scores of J. Kallis a South African cricket player:

17; 61; 25; 37; 35; 45; 59; 19; 22; 38; 44; 32; 26; 55; 43

1				7	9
2		2	5	6	
3		2	5	7	8
4		3	4	5	
5			5		9
6		1			

Answer the following questions:

- i. Name the display of data? (1)  
 \_\_\_\_\_
- ii. Write down the lowest score? (1)  
 \_\_\_\_\_
- iii. Write down the highest score? (1)  
 \_\_\_\_\_
- iv. Find the median (1)  
 \_\_\_\_\_

v. Calculate the mean?

(2)

**Question 8**

**(3 marks)**

**PROBABILITY**

A bowls player has 6 green balls, 4 red balls and 10 yellow balls in his bowls bag. What is the probability of drawing the following at random?

- a) A green ball : \_\_\_\_\_ (1)
- b) A ball : \_\_\_\_\_ (1)
- c) A green or red ball : \_\_\_\_\_ (1)

**Question 9**

**( 4 marks)**

**Radio and rate**

If Thando gets 10 marks and Dani 20 for a project, complete the following using the simplest form:

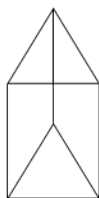
- a) The ratio of Thando's marks to Dani's marks is \_\_\_\_\_ (1)
- b) Dani's mark ... times Thando's marks. \_\_\_\_\_ (1)
- c) My mom mixes 6 parts of water with 4 parts of orange juice cordial.
  - i) What is the ratio water to orange juice cordial? \_\_\_\_\_ (1)
  - ii) Write the fraction (in the simplest form) \_\_\_\_\_ (1)

**Question 10**

**(6 marks)**

**Geometry of 3D Objects**

A



B



Refer to the above 3-D figures and complete the table:

Questions	A	B
a) the name of each figure		
b) how many faces in A and B.		
c) what the shape of the faces are.		

**TOTAL: 100**