

GPLMS MATHEMATICS

GRADE 7

NOVEMBER 2014

MEMORANDUM

TOTAL: 100 Marks

Question	Expected answer(s)	Marks
SECTION A		
Question 1		
1.1	E ✓	1
1.2	C ✓	1
1.3	A ✓	1
1.4	A ✓	1
1.5	D ✓	1
SECTION B		
Question 1		
a.	4 x 10 000 or 40 000 or 4 x 10Th or forty thousand ✓	Any of the given options : 1 mark
b.	60 000 ✓	1
c.	Simplify: $10 + 4 \div 2 = 10 + 2 = 12$ ✓	1
d.	Fill in the correct operational sign: $10 \div 2 + 4 = 9$ ✓	1
e.	$(14 \div 2) + (51 - 48) = 10$ ✓	10 : 1 mark
f.	$2^3 = (2)(2)(2) = 8$ ✓	1
g.	$\sqrt{16}$, $16 = 2 \times 2 \times 2 \times 2$ ∴ $\sqrt{16} = 2 \times 2 = 4$ ✓ ✓	2
h.	28, 35, 42, 49 ✓	1 mark for ALL
i.	4,01 ; 4,3 ; 4,5 ; 4,8 ✓	1 mark : correct order / sequence
Question 2		
2.1	$\frac{2}{3} > \frac{1}{2}$ ✓	1
2.2. a	$\frac{2}{3} - \frac{1}{6}$ (Write your answer in the simplest form) $= \frac{2}{3} \left(\frac{2}{2} \right) - \frac{1}{6}$ $= \frac{4}{6} \checkmark - \frac{1}{6}$ $= \frac{3}{6} \checkmark = \frac{1}{2} \checkmark$	3

2.2.b	$2\frac{2}{3} + 1\frac{2}{5}$ (Leave your answer in improper form) $= \frac{8}{3} + \frac{7}{5} \checkmark$ $= \frac{8}{3} \left(\frac{5}{5}\right) + \frac{7}{5} \left(\frac{3}{3}\right) \checkmark$ $= \frac{40}{15} + \frac{21}{15} \checkmark$ $= \frac{61}{15} \checkmark$	4
2.2.c	$5\frac{1}{3} \times \frac{3}{8} = \frac{16}{3} \checkmark \times \frac{3}{8} = 2 \checkmark$	2
2.2.d	$\frac{3}{4}$ of 28 $\frac{3}{4} \times \frac{28}{1} \checkmark = 21 \checkmark$	2
Question 3		
3.1	Thousand/1000 \checkmark	1
3.2.a	$6,5 - 2,34$ 6,50 <i>Correct method</i> \checkmark $\underline{-2,34}$ 4,16 \checkmark	2
b	$0,06 \times 0,3$ $\begin{array}{r} 6 \\ \times 3 \\ \hline 18 \end{array} \checkmark$ 0,018 \checkmark (for 18) ; correct decimal place	2
c	$3,7 \times 1,4$ $\begin{array}{r} 37 \\ \times 14 \checkmark \\ \hline 370 \\ + 148 \checkmark \\ \hline 518 \end{array}$ Answer: 5,18 \checkmark	3
Question 4		
4.1.a	$-7 > -8 \checkmark$	1
4.1.b	$-7 = -8 + 1 \checkmark$	1
4.2.a	$-18 - 13 = -31 \checkmark$	1
4.2.b	$8 + (-27) = -19 \checkmark$	1
4.2.c	$-75 - (-25) = -75 + 25 = -50 \checkmark$	1
4.2.d	$14 + x = 16 - 8 \quad x = 8 - 14 \checkmark \quad x = -6$	2
4.2.e	$\frac{24}{3} = \frac{3}{3} r \checkmark \quad r = 8 \checkmark$	2
Question 5		
5.1.a	$14 + \boxed{-6} = 16 - 8 \checkmark$	1

5.1.b	$24 = 3 \times \boxed{8} \checkmark$	1																		
5.2	$(18 + 12) \div 2 = 15 \checkmark$	1																		
5.3 a	i) $z=6 \checkmark$ ii) $y=16 \checkmark$ Check: $9(6)=54 \checkmark$ Check: $16-4=12 \checkmark$	4																		
Question 6																				
6.1	a. $\times 3 \checkmark$ b. $+1 \checkmark$ c. $T_n \checkmark = \checkmark 3n + 1 \checkmark$	5																		
6.2	a. B & C \checkmark b. Translation \checkmark c. 6 down 8 left $\checkmark \checkmark$	4																		
6.3	$A = 50 \checkmark$ Fig 1: $1 \times 2 + 2 \times 3 = 8$ Fig 2: $2 \times 3 + 3 \times 4 = 18$ Fig 3: $3 \times 4 + 4 \times 5 = 32$ Fig 4: $4 \times 5 + 5 \times 6 = 50$	1																		
Question 7																				
a.i	16	1																		
ii	13;14;14;15;15;15;16;16;16;16;17;17 \checkmark	1																		
iii	16 $\checkmark \checkmark$	2																		
iv	$17 - 13 = 4 \checkmark$	1																		
v	$mean = \frac{13+14(2)+15(3)+16(5)+17(2)}{13} \checkmark = \frac{200}{13} \checkmark = 15,3846 \checkmark = 15.4 \checkmark$	4																		
vi	<table border="1"> <thead> <tr> <th>DAYS / No. of learners</th> <th>Tally</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>13</td> <td> </td> <td>1 $\checkmark \checkmark$</td> </tr> <tr> <td>14</td> <td> </td> <td>2</td> </tr> <tr> <td>15</td> <td> </td> <td>3</td> </tr> <tr> <td>16</td> <td> </td> <td>5 $\checkmark \checkmark$</td> </tr> <tr> <td>17</td> <td> </td> <td>2 $\checkmark \checkmark$</td> </tr> </tbody> </table>	DAYS / No. of learners	Tally	Frequency	13		1 $\checkmark \checkmark$	14		2	15		3	16		5 $\checkmark \checkmark$	17		2 $\checkmark \checkmark$	6
DAYS / No. of learners	Tally	Frequency																		
13		1 $\checkmark \checkmark$																		
14		2																		
15		3																		
16		5 $\checkmark \checkmark$																		
17		2 $\checkmark \checkmark$																		
vii		5																		

	DAYS (all labels)														
b.	i) Stem and leaf ✓ ii) 17 ✓ iii) 61 ✓ iv) 37 ✓ v) $\text{mean} = \frac{17 + 19 + 22 + 25 + 26 + 32 + 35 + 37 + 38 + 43 + 44 + 45 + 55 + 59 + 61}{15}$ $= 37.2 \checkmark$		6												
Question 8															
	a) $\frac{6}{20}$ or $\frac{3}{10}$ ✓ b) $\frac{20}{20}$ or 1 ✓ c) $\frac{10}{20}$ or $\frac{1}{2}$ ✓		3												
Question 9															
	a) 10: 20 or 1 : 2 ✓ b) 2 ✓ c) i) 6 : 4 or 3 : 2 ✓ ii) $1\frac{1}{2}$ ✓		4												
Question 10															
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Questions</th> <th style="width: 35%;">A</th> <th style="width: 35%;">B</th> </tr> </thead> <tbody> <tr> <td>a) the name of each figure</td> <td>triangular prism ✓</td> <td>square-based pyramid ✓</td> </tr> <tr> <td>b) how many faces in A and B</td> <td>5 ✓</td> <td>5 ✓</td> </tr> <tr> <td>c) what the shape of the faces are.</td> <td>triangles & rectangles ✓</td> <td>square & triangles ✓</td> </tr> </tbody> </table>	Questions	A	B	a) the name of each figure	triangular prism ✓	square-based pyramid ✓	b) how many faces in A and B	5 ✓	5 ✓	c) what the shape of the faces are.	triangles & rectangles ✓	square & triangles ✓		6
Questions	A	B													
a) the name of each figure	triangular prism ✓	square-based pyramid ✓													
b) how many faces in A and B	5 ✓	5 ✓													
c) what the shape of the faces are.	triangles & rectangles ✓	square & triangles ✓													