



GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

**GAUTENG DEPARTMENT OF EDUCATION
PROVINCIAL EXAMINATION
JUNE 2016
GRADE 6**

MATHEMATICS

MEMORANDUM

7 pages

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PROVINCIAL EXAMINATION**

MATHEMATICS

MEMORANDUM

General marking note:

1. Give full marks for answers only, unless otherwise stated.
2. Accept any alternative correct solution that is not included in the memorandum.
3. CA refers to consistent accuracy. See clarification in Question 3.3.

QUESTION		EXPECTED ANSWER	CLARIFICATION	MARK	TOTAL	
1.	1.1	D ✓		1		
	1.2	D ✓		1		
	1.3	C ✓		1		
	1.4	C ✓		1		
	1.5	B ✓		1		
	1.6	C ✓		1		
	1.7	B ✓		1		
	1.8	C ✓		1		
	1.9	D ✓		1		
	1.10	A ✓		1		
					10	
2.	2.1	53 300 ✓	Correct answer	1 mark	1	
	2.2	728 000 ✓	Correct answer	1 mark	1	
					2	

3.	3.1	$\begin{array}{r} 18\ 677 \\ + 63\ 243 \\ \hline 81\ 920 \\ \checkmark \checkmark \end{array}$ <p>Accept any other alternative correct method e.g. breaking down or building up etc.</p>	Correct answer 2 marks 920 1 mark 81 1 mark	2
	3.2	$\begin{array}{r} 7\ 584 \\ - 4\ 759 \\ \hline 2\ 825 \\ \checkmark \checkmark \end{array}$ <p>Accept any other alternative correct method e.g. breaking down or building up etc.</p>	Correct answer 2 marks 25 1 mark 28 1 mark	2
	3.3	$\begin{array}{r} 5\ 734 \\ \times \quad 42 \\ \hline 11\ 468 \checkmark \\ + 229\ 360 \checkmark \\ \hline 240\ 828 \checkmark \end{array}$ <p>Example of CA:</p> $\begin{array}{r} 5\ 734 \\ \times \quad 42 \\ \hline 11\ 468 \checkmark \\ + 22\ 936 \times \\ \hline 33\ 404 \checkmark \end{array}$	Correct answer 3 marks 11 468 1 mark 229 360 1 mark 240 828 1 mark Any other alternative correct method including Napier's Bones method Apply CA	3
	3.4	$7\ 663 \div 25 = 306 \text{ remainder } 13$ $\begin{array}{r} 3\ 0\ 6 \checkmark \\ 25 \overline{) 7\ 6\ 6\ 3} \\ \underline{- 7\ 5} \quad \checkmark \\ 1\ 6\ 3 \\ \underline{- 1\ 5\ 0} \\ 1\ 3 \checkmark \end{array}$	Correct answer 3 marks 306 1 mark Appropriate Calculation 1 mark 13 rem OR $\frac{13}{25}$ 1 mark Any other alternative correct method Apply CA	3

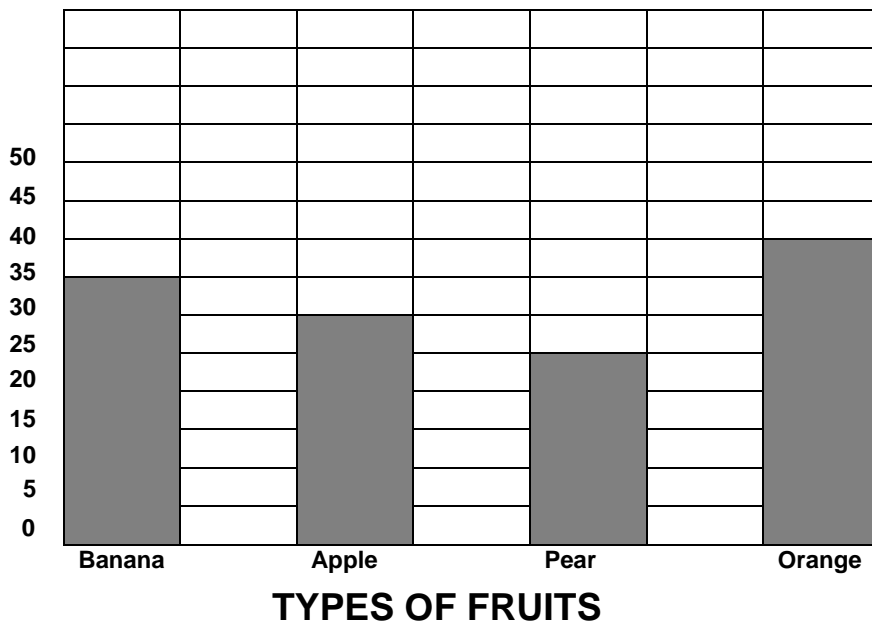
3.5	$2\frac{3}{8} + 4\frac{1}{8}$ $= 6\checkmark + \frac{3}{8} + \frac{1}{8}$ $= 6\frac{4}{8}\checkmark \text{ or } 6\frac{1}{2}\checkmark$ <p>OR</p> $= \frac{19}{8} + \frac{33}{8}\checkmark$ $= \frac{52}{8}\checkmark$	Correct answer 2 marks 6 1 mark $\frac{4}{8}$ or $\frac{1}{2}$ 1 mark Apply CA	2
3.6	$2\frac{1}{4} - 1\frac{1}{2}$ $= \frac{9}{4} - \frac{3}{2}\checkmark$ $= \frac{9}{4} - \frac{6}{4}\checkmark$ $= \frac{3}{4}\checkmark$	Correct answer 3 marks Method 1 mark Equivalent fractions 1 mark Answer: 1 mark Accept any other alternative correct method. Apply CA	3
3.7	$\begin{array}{r} 0,79 \\ + 0,69 \\ \hline 1,48 \\ \checkmark\checkmark \end{array}$	Correct answer 2 marks 0,48 1 mark 1 1 mark No marks should be awarded if no decimal comma	2
3.8	$\begin{array}{r} 5,3\checkmark \\ - 2,34 \\ \hline 2,96\checkmark \end{array}$	Correct answer 2 marks Correct place value 1 mark 2,96 1 mark No marks should be awarded if no decimal comma	2
3.9	30 % of 120 $= \frac{30}{100} \times 120$ $= 3 \times 12\checkmark$ $= 36\checkmark$	Correct answer 2 marks Calculation 1 mark 36 1 mark Apply CA	2

	3.10	$15 + (30 \div 6 - 3)$ $= 15 + (5\checkmark - 3)$ $= 15 + 2\checkmark$ $= 17\checkmark$	BODMAS 5 2 17	1 mark 1 mark 1 mark	3	24
4.		$\frac{3}{4}$, $\frac{1}{2}$, $\frac{2}{5}$, $\frac{1}{4}$ ✓	1 mark only if the whole order is correct			1
5.		$-4\checkmark$ $51\checkmark$	1 mark for each correct answer		1	2
6.		15 ✓	1 mark for correct answer			1
7.	7.1	16 ✓	Correct Answer	1 mark	1	3
	7.2	5 ✓	5	1 mark	1	
	7.3	144 ✓	144	1 mark	1	
8.		Pentagonal prism ✓ Square ✓ and pentagon ✓ 10 vertices ✓	1 mark for each correct answer			4
9.		2 ✓	Accept appropriate drawing of lines of symmetry.			1
10.	10.1	Parallelogram or Rhombus or Kite ✓	Correct Answer	1 mark	1	2
	10.2	Rectangle ✓	Correct Answer	1 mark	1	
11.		$\frac{3}{5}\checkmark \times 60$ $= 3 \times 12$ $= 36 \text{ children}\checkmark$	$\frac{3}{5}$ Answer	1 mark 1 mark		2
12.	12.1	04:30 ✓	Correct Answer	1 mark	1	4
	12.2	London will be 5hr 30mins later ✓ 19:30 ✓ ✓ or 19h30 ✓ ✓ or 7:30pm ✓ ✓	Correct answer Calculating time difference between London and Delhi	3 marks 1 mark		
			Correct answer Indication that it is in the evening.	1 mark 1 mark	3	

13.		R150 x 5 days ✓ R750 per week ✓ R750 x 6 weeks = R4 500 ✓	Correct answer 3 marks Correct working 2 marks Answer 1 mark Apply CA			3
14.		40 x 2 = 80 glasses ✓ 80 x 250 ml = 20 000 ml ✓ 20 000 ml = 20 l ✓ = 10 two-litre bottles ✓	Correct answer 4 marks 80 glasses 1 mark 20 000 ml 1 mark Converting ml to litres 1 mark 10 x 2l bottles 1 mark Apply CA			4
15.	15.1	2:30 or 02h30 ✓ (Can be am or pm)	Correct Answer 1 mark	1		2
	15.2	14:30 or 14h30 or 02:30 or 02h30 ✓ (Can be am or pm)	Correct Answer 1 mark	1		
16.	16.1	Reflex angle ✓	Correct Answer 1 mark	1		3
	16.2	Straight angle ✓	Correct Answer 1 mark	1		
	16.3	Acute angle ✓	Correct Answer 1 mark	1		
17.	17.1	R12 ✓	Correct Answer 1 mark	1		2
	17.2	R13 ✓	Correct Answer 1 mark	1		

18.

NUMBER OF LEARNERS



Rubric

- 3 marks for all correctly drawn bars
- 2 marks for three correctly drawn bars
- 1 mark for two correctly drawn bars

3

19.

$$7 + 6 + 5 + 4 + 3 + 2 + 1 \checkmark = 28 \text{ Hugs } \checkmark$$

- Correct answer 2 marks
- Calculation 1 mark
- Answer 1 mark

2

TOTAL: 75