



**GAUTENG PROVINCE**  
EDUCATION  
REPUBLIC OF SOUTH AFRICA

**GAUTENG DEPARTMENT OF EDUCATION  
PROVINCIAL EXAMINATION  
NOVEMBER 2018  
GRADE 6**

**MATHEMATICS**

**MARKING GUIDELINES**

**8 pages**

GAUTENG DEPARTMENT OF EDUCATION  
PROVINCIAL EXAMINATION

## MATHEMATICS

**General marking note:**

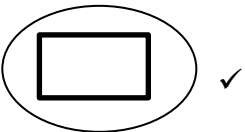
1. Give full marks for answers only, unless otherwise stated.
2. Accept any alternative correct solution that is not included in the marking guidelines.
3. CA refers to consistent accuracy. See clarification in Question 4.3.

QUESTION	EXPECTED ANSWER	CLARIFICATION	MARK	TOTAL
1	1.1	B✓	1	
	1.2	C✓	1	
	1.3	B✓	1	
	1.4	C✓	1	
	1.5	D✓	1	
	1.6	C✓	1	
	1.7	B✓	1	
	1.8	A✓	1	
	1.9	C✓	1	
	1.10	A✓	1	
	1.11	D✓	1	
	1.12	A✓	1	
	1.13	A✓	1	
	1.14	B✓	1	
	1.15	C✓	1	
				15

2	2.1.1	8 600✓		1	6								
	2.1.2	185 000✓		1									
	2.2.1	$14 \times 1 + 0$ ✓ OR $14 \times 1 + 0 = 14$ and $14 \times 0 + 1 = 1$	Accept any method used to indicate the correct number sentence. No marks if both possible answers are chosen.	1									
	2.2.2	$(15 + 4) \times 5$ ✓ OR $15 + 4 \times 5 = 35$ and $(15 + 4) \times 5 = 95$		Full marks may be awarded if the learner calculates answers to both possible number sentences correctly, instead of indicating the number sentence with the higher value.		1							
	2.3	21✓		1									
	2.4	6✓		1									
3		<table border="1"> <thead> <tr> <th>Fraction</th> <th>Decimal</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td><math>\frac{75}{100}</math> or <math>\frac{3}{4}</math> ✓</td> <td>0,75</td> <td>75 ✓ %</td> </tr> <tr> <td><math>\frac{3}{10}</math></td> <td>0,3 ✓</td> <td>30%</td> </tr> </tbody> </table>	Fraction	Decimal	Percentage	$\frac{75}{100}$ or $\frac{3}{4}$ ✓	0,75	75 ✓ %	$\frac{3}{10}$	0,3 ✓	30%	$\frac{75}{100}$ or $\frac{3}{4}$ or any equivalent fraction: 1 mark  0,3 : 1 mark  75 : 1 mark  Do not penalize the learner for not writing the “%” sign.	3
Fraction	Decimal	Percentage											
$\frac{75}{100}$ or $\frac{3}{4}$ ✓	0,75	75 ✓ %											
$\frac{3}{10}$	0,3 ✓	30%											

4	4.1	$\begin{array}{r} 18\ 293\ 476 \\ +\ 1\ 029\ 531 \\ \hline 19\ 323\ 007 \\ \quad \checkmark \quad \quad \checkmark \end{array}$	<p>Correct answer: 2 marks</p> <p>007 : 1 mark 19 323 : 1 mark</p> <p>Accept any other alternative correct method.</p>	2	
	4.2	$\begin{array}{r} 56\ 500\ 879 \\ -\ 12\ 439\ 421 \\ \hline 44\ 061\ 458 \\ \quad \checkmark \quad \quad \checkmark \end{array}$	<p>Correct answer: 2 marks</p> <p>458 : 1 mark 44 061 : 1 mark</p> <p>Accept any other alternative correct method.</p>	2	
	4.3	$\begin{array}{r} 4\ 536 \\ \times\ 23 \\ \hline 13\ 608\ \checkmark \\ +\ 90\ 720\ \checkmark \\ \hline 104\ 328\ \checkmark \end{array}$ <p>Example of CA:</p> $\begin{array}{r} 4\ 536 \\ \times\ 23 \\ \hline 13\ 608\ \checkmark \text{ (3 214} \times 1 \text{ correct)} \\ +\ 9\ 072\ \times \text{ (3 214} \times 50 \text{ incorrect)} \\ \hline 22\ 680\ \checkmark \text{ (previous steps correctly added)} \end{array}$	<p>Correct answer: 3 marks</p> <p>13 608 : 1 mark 90 720 : 1 mark Correctly adding steps : 1 mark</p> <p>Accept any other alternative correct method including Napier's Bones method.</p> <p>Apply CA</p>	3	
	4.4	$\begin{array}{r} \quad \quad \checkmark \quad \checkmark \quad \text{Rem} \\ \quad \quad 3\ 1\ 8\ 15\checkmark \\ 25 \overline{) 7\ 9\ 6\ 5} \\ -\ 7\ \underline{5} \\ \hline \quad 4\ 6 \\ -\ 2\ \underline{5} \\ \hline \quad 2\ 1\ 5 \\ \quad 2\ 0\ \underline{0} \\ \hline \quad \quad 1\ 5 \end{array}$	<p>Correct answer: 3 marks</p> <p>3 : 1 mark 18 : 1 mark Remainder 15 : 1 mark</p> <p>Apply CA</p> <p>Accept any other alternative correct method.</p>	3	

4.5	$4 + 3 = 7 \checkmark$ $\frac{2}{10} \checkmark + \frac{3}{10} = \frac{5}{10}$ $7 + \frac{5}{10} = 7 \frac{5}{10} \checkmark$ <p>OR: <math>7 \frac{1}{2}</math></p>	<p>Correct answer: 3 marks</p> <p>Adding the whole numbers : 1 mark</p> <p>Finding equivalent fractions so that the denominators are the same: 1 mark</p> <p><math>7 \frac{5}{10}</math> or <math>7 \frac{1}{2}</math> : 1 mark</p> <p>Accept any other alternative correct method, and any answer that is equivalent.</p> <p>Apply CA</p>	3
4.6	$6 - 4 = 2 \checkmark$ $\frac{5}{7} - \frac{4}{7} = \frac{1}{7} \checkmark$	<p>Subtract whole numbers : 1 mark</p> <p>Subtract fractions : 1 mark</p> <p>Accept any other alternative correct method, and any answer that is equivalent.</p> <p>Apply CA</p>	2
4.7	$= 224 \div 4 \times 3$ $= 56 \times 3 \checkmark$ $= 168 \checkmark$	<p>Correct answer : 2 marks</p> <p>Divide by 4 : 1 mark</p> <p>Multiply by 3 : 1 mark</p> <p>Apply CA</p>	2

4.8		$\begin{array}{r} 2,07 \\ + 2,4 \\ \hline 4,47 \end{array} \left. \vphantom{\begin{array}{r} 2,07 \\ + 2,4 \\ \hline 4,47 \end{array}} \right\} \checkmark$	<p>Correct answer: 2 marks</p> <p>Correct place value: 1 mark</p> <p>4,47 : 1 mark</p> <p>No marks to be awarded for the final answer if there is no comma.</p>	2	19												
5		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">3D Object</th> <th style="padding: 5px;">Vertices</th> <th style="padding: 5px;">Edges</th> <th style="padding: 5px;">Faces</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Pentagonal prism</td> <td style="text-align: center; padding: 5px;">10✓</td> <td style="text-align: center; padding: 5px;">15</td> <td style="text-align: center; padding: 5px;">7✓</td> </tr> <tr> <td style="padding: 5px;">Square or rectangular based pyramid✓</td> <td style="text-align: center; padding: 5px;">5</td> <td style="text-align: center; padding: 5px;">8</td> <td style="text-align: center; padding: 5px;">5</td> </tr> </tbody> </table>	3D Object	Vertices	Edges	Faces	Pentagonal prism	10✓	15	7✓	Square or rectangular based pyramid✓	5	8	5	<p>10 vertices : 1 mark</p> <p>7 faces : 1 mark</p> <p>Square or rectangular based pyramid : 1 mark</p>		3
3D Object	Vertices	Edges	Faces														
Pentagonal prism	10✓	15	7✓														
Square or rectangular based pyramid✓	5	8	5														
6	6.1	Obtuse✓		1													
	6.2		<p>Accept any method used to indicate the correct answer.</p>	1													
	6.3	Translation ✓ Or Slide		1													
	6.4	2 ✓		1	4												

7	7.1	<table border="1"> <tr> <td><b>Pattern number</b></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>8✓</td> </tr> <tr> <td><b>Number of blocks</b></td> <td>5</td> <td>8</td> <td>11</td> <td>14✓</td> <td>26</td> </tr> </table>					<b>Pattern number</b>	1	2	3	4	8✓	<b>Number of blocks</b>	5	8	11	14✓	26	14 : 1 mark 8 : 1 mark	2	
		<b>Pattern number</b>	1	2	3	4	8✓														
<b>Number of blocks</b>	5	8	11	14✓	26																
7.2	95 ✓						1														
	7.3	15 ✓						1	4												
8	8.1	8.1.1	kilometres✓ or km					1													
		8.1.2	kilolitres✓ or kl					1													
	8.2	8.2.1	13 200✓					1													
		8.2.2	0,19✓					1													
	8.3	2 000 ml ✓ – 205 ml = 1795 ml✓ OR 2 L – 0,205 L = 1,795 L			Convert 2 litres to 2000 millilitres or 205 millilitres to 0,205 litres : 1 mark  1 795 ml or 1,795 L : 1 mark		2	6													
9	9.1	8:15 pm✓			No marks if pm is not included in the answer		1														
	9.2	21:40✓ ✓ OR 9:40✓pm✓			21:40 : 2 marks OR 9:40 : 1 mark pm : 1mark		2		3												
10	<table border="1"> <tr> <td><b>Type of food</b></td> <td><b>Number of children</b></td> </tr> <tr> <td><b>Hamburger</b></td> <td>300✓</td> </tr> <tr> <td><b>Hot Dog</b></td> <td>225✓</td> </tr> </table>		<b>Type of food</b>	<b>Number of children</b>	<b>Hamburger</b>	300✓	<b>Hot Dog</b>	225✓	300 : 1 mark 225 : 1 mark					2							
	<b>Type of food</b>	<b>Number of children</b>																			
	<b>Hamburger</b>	300✓																			
<b>Hot Dog</b>	225✓																				

**MARKING GUIDELINES**

**MATHEMATICS  
GRADE 6**

11	11.1	18✓		1	2
	11.2	Brazil✓		1	
12		Mpho ✓: R105 per Kg ✓ OR Martin : R110 per Kg✓	Mpho : 1 mark  Correct calculation of the cost per kg for the meat of either person : 1 mark.		2
13		$(1\ 572 - 12) \checkmark \div 104 = 15 \checkmark$	Correct answer : 2 marks $1\ 572 - 12$ : 1 mark 15 : 1 mark		2
14		$\frac{8}{30} \checkmark \checkmark$ OR $= \frac{4}{15} \checkmark \checkmark$	$\frac{4}{15}$ OR $\frac{8}{30}$ : 2 marks  Accept any equivalent answer		2
15		Length of the square is 6 cm ✓ ( $6 \times 6 = 36$ )  $6 \times 4 = 24$ cm✓	Calculating the length of the sides of the square: 1 mark  Calculating the perimeter by adding the side 4 times or multiplying by 4 : 1 mark  Apply CA		2
				<b>TOTAL:</b>	<b>75</b>