



ANNUAL NATIONAL ASSESSMENT 2012  
GRADE 6 MATHEMATICS  
MEMORANDUM

MARKS: 75

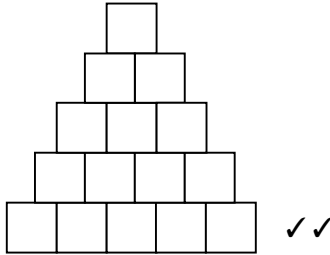
This memorandum consists of 3 pages.

Important information:

1. Give full marks if only correct answers are given, unless stated otherwise.
2. Accept any mathematically correct solution that is not included in the memorandum.
3. EC means Error Carried.

QUESTION		EXPECTED ANSWERS	CLARIFICATION	MARKS	TOTAL
1.	1.1	B✓		1	6
	1.2	D✓		1	
	1.3	D✓		1	
	1.4	D✓		1	
	1.5	B✓		1	
	1.6	A✓		1	
2.		0,67✓		1	1
3.		4 283 164✓		1	1
4.	4.1	143✓		1	
	4.2	36✓		1	
	4.3	19✓		1	
	4.4	120✓		1	4
5.		40 000✓		1	1
6.		29 700✓		1	1
7.	7.1	<div>235 583 + 32 912 <div>654</div><div>269 149</div>✓ ✓</div>	All digits of the answer must be correct. EC	2	
	7.2	<div>394 067 - 63 625 <div>330 442</div>✓ ✓</div>	As above. EC	2	
	7.3	<div><div>1 4 5</div><div><div>4 8</div>✓<div>6 9 6 0</div><div>5 8 0</div>✓<div>1 1 6 0</div>✓<div>1 1 6 0</div><div>0</div></div></div>	Answer ✓  Step 1 ✓multiplication Step 2 ✓subtraction and bring down	3	
	7.4	<div>2 067 x <div>189</div><div>18 603</div>✓<div>165 360</div>✓<div>+ 206 700</div>✓<div>390 663</div>✓</div>	1 mark for each product. 1 mark for the answer. EC	4	

	7.5	$5 - 3,64 = 1,36 \quad \checkmark \quad \text{OR}$ $\begin{array}{r} 5,00 \\ - 3,64 \\ \hline 1,36 \end{array} \quad \checkmark$		1	
	7.6	$\begin{array}{r} 24,37 \\ + 346,83 \\ \hline 371,20 \end{array} \checkmark$		1	13
8.	8.1	$8\frac{3}{10} - 4\frac{1}{5} \quad \text{OR} \quad = \frac{83}{10} - \frac{21}{5} \checkmark$ $= 4\checkmark + \frac{3}{10} - \frac{2}{10} \checkmark = \frac{83}{10} - \frac{42}{10} \checkmark$ $= 4 + \frac{1}{10} \checkmark = \frac{41}{10} \checkmark$ $= 4\frac{1}{10} \checkmark = 4\frac{1}{10} \checkmark$	Convert $\frac{1}{5}$ to $\frac{2}{10} \checkmark$ EC	4	
	8.2	$8 + \frac{1}{2} + \frac{1}{8} + \frac{3}{4}$ $= 8 + \frac{4}{8} + \frac{1}{8} + \frac{6}{8} \checkmark$ $= 8 + \frac{11}{8} \checkmark$ $= 8 + 1 + \frac{3}{8} \checkmark$ $= 9\frac{3}{8} \checkmark$ <b>OR</b> $= \frac{11}{2} + \frac{25}{8} + \frac{3}{4}$ $= \frac{44}{8} \checkmark + \frac{25}{8} + \frac{6}{8} \checkmark$ $= \frac{75}{8} \checkmark$ $= 9\frac{3}{8} \checkmark$	Convert $\frac{3}{4}$ to $\frac{6}{8} \checkmark$ Add fractions to $\frac{11}{8} \checkmark$ Convert $\frac{11}{8}$ to $1 + \frac{3}{8} \checkmark$ Answer $\checkmark$ EC	4	8
9.	9.1	$h = 89 \checkmark$		1	
	9.2	$k = 11 \checkmark$		1	2
10.		$13 \checkmark$		1	1
11.		$53 \checkmark$		1	1
12.		$\frac{45}{60} \times 100 \checkmark = 75 \text{ km} \checkmark$	75 only- full marks	2	2
13.		Number of packets = $480 \div 24 = 20 \checkmark$ Selling price = $R2,50 \times 20 = R50 \checkmark$ Profit = $R50 - R30$ $= R20 \checkmark$	Number of packets = $480 \div 24 \checkmark = 20$ Selling price = $R2,50 \times 20 \checkmark = R50$ Profit = $R50 - R30 \checkmark$ $= R20$	3	3

14.			5 blocks in the base. ✓ All other blocks must be in the correct position following the same pattern (pyramid) ✓ ( no spaces between blocks)	2	2
15.		Triangular prism ✓		1	
		Number of vertices 6 ✓		1	
		Number of edges 8 ✓		1	3
16.		Rotation ✓		1	1
17.		2 ✓		1	1
18.		D ✓		1	1
19.	19.1	6 ✓		1	
	19.2	4 ✓		1	
	19.3	24 ✓		1	3
20.		D ✓		1	1
21.	21.1	4 ✓		1	
	21.2	Octagon ✓	Accept the shape as well	1	
	21.3	B6 OR 6B ✓		1	3
22.		6 hours ✓ 45 minutes ✓	Correct hours ✓ Correct minutes ✓	2	2
23.		$37 \times 2 = 74$ ✓ glasses $200 \text{ ml} \times 74 = 14\,800 \text{ ml}$ ✓ $= 14,8 \text{ litre}$ $14,8 \div 2 = 7,4$ She should buy 8 two-litre bottles ✓	Products 1 mark each. $37 \times 2 = 74$ glasses $200 \text{ ml} \times 74 = 14\,800 \text{ ml}$ ✓ $= 14,8 \text{ litre}$ $14,8 \div 2 = 7,4$ She should buy 8 two-litre bottles	3	3
24.	24.1	260 g ✓		1	
	24.2	0,26 kg ✓	If the answer in 24.1 is incorrect BUT it is correctly converted give a mark.	1	2
25.	25.1	16 ✓		1	
	25.2	<del>///</del> <del>---</del> // ✓		1	2
26.	26.1	$\frac{3}{8}$ ✓		1	
	26.2	25% ✓		1	
	26.3	R30,00 ✓		1	3
27.		4 out of 11 ✓ OR $\frac{4}{11}$		1	1
28.		3 4 5 10 10 <u>11</u> 12 14 16 19 20 Median = 11 ✓		1	1
29.		$4 \times 4 = 16$ ✓ ✓	If learners write the correct 16 answers, award the 2 marks. 62,60,67,63,20,27,23,26,73, 70,72,76,37,30,32,36	2	2

**TOTAL: 75**