basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ANNUAL NATIONAL ASSESSMENT

GRADE 3

MATHEMATICS

SET 2: 2012 EXEMPLAR MEMO

Question		Expected answer													Marks
1.		a.	497	**496**	**495**	**494**	**493**	492	**491**	**490**	**489**	**488**	**487**	**486** 485	1
		b.	210	**220**	**230**	**240**	250	**260**	**270**	**280**	**290**	**300**	**310**	**320** 330	1
		c.	385	**380**	**375**	**370**	**365**	**360**	**355**	350	**345**	**340**	**335**	**330** 325	1
		d.	398	**400**	402	**404**	**406**	**408**	**410**	**412**	**414**	**416**	418	**420** **422**	1
		e.	399	**396**	**393**	**390**	387	**384**	**381**	**378**	375	**372**	**369**	**366** 363	1
		f.	144	**148**	**152**	**156**	**160**	**164**	**168**	**172**	**176**	**180**	**184**	188 **192**	1
2.	a.	900; **800 ; 700 ; 600** ; 500; **400; 300 ; 200**.													1
	b.	**150** ; 200 ; 250 ; **300 ; 350 ; 400 ; 450** ; 500													1
3.		**Forwards in tens**: 110 ; **120; 130 ; 140 ; 150 ; 160 ; 170; 180; 190; 200**													1
		Backwards in fives: 190; **185; 180 ; 175; 170 ; 165 ; 160**													1
		Forwards in threes: 153 ; **156 ; 159; 162 ; 165 ; 168**													1
		Backwards in twos: 110; **108; 106; 104; 102; 100; 98**													1
4.		268 is the last number on the number line													1
5.		150 ; 250 ; 350; **450 ; 550 ; 650 ; 750; 850**													1
		The rule used: Counting in 100s													1
6.		B													1
7.															5

8.	a.	762	1
	b.	984	1
	c.	609	1

9.	a.	Two hundred and thirty-five	1
	b.	One hundred	1
	c.	One hundred and eighty-three	1
10.	a.	One hundred and thirty-nine ✔ 139 ✔	2
	b.	One hundred and ninety ✔ 190 ✔	2

11.	a.	Two hundred and forty-four ✔ 244 ✔	2
	b.	One hundred and thirty-eight ✔ 138 ✔	2
	c.	Eighty-eight ✔ 88 ✔	2
12.	a.	One hundred fifty ✔ 150 ✔	2
	b.	Two hundred seventy-four ✔ 274 ✔	2
	c.	Fifty-five ✔ 55 ✔	2
13.	a.	false	1
	b.	true	1
	c.	true	1
14.	a.	<	1
	b.	<	1
	c.	>	1
15.	a.	112 , 122 , 211 , 212 , 221	1
	b.	220 , 230 , 302 , 320 , 330	1
	c.	246 , 266 , 424 , 426 , 462	1
16.	a.	221 , 212 , 211 , 122 , 112	1
	b.	330 , 320 , 302 , 230 , 220	1
	c.	462 , 426 , 424 , 266 , 246	1

17.		B	1
18.	a.	3	1
	b.	200	1
	c.	0	1
	d.	20	1
19.	a.	236	1
	b.	6	1
	c.	**2** hundreds **3** tens **6** units	1
	d.	3	1
	e.	100	1
	f.	10	1
20.	a.	304	1
	b.	63	1
	c.	222	1
	d.	416	1
21.		315	1
22.		400 + 80 + 5	1
		200 + 200 + 40 + 40 + 3 + 2 or any other correct breaking down	1
23.	a.	0 hundreds, 6 tens, or 63 units	1
	b.	2 hundreds or 25 tens, or 258 units	1
	c.	3 hundreds or 306 units	1
	d.	4 hundreds or 44 tens or 440 units	1
24.		50 + 20 + 5 → 75 200 + 120 + 20 + 7 → 347 300 + 60 + 0 → 360 400 + 40 + 4 → 444	4

Operations with whole numbers: Addition, Subtraction, Multiplication and Division

1.	a.	Number doubled	Number	Number halved	6
		62	31	15 and 1 half	
		324	162	81	
		812	406	203	

	b.	Number	Number rounded off to the nearest 10	
		152	150	1
		75	80	1

2.	a.	true	1
	b.	false	1
	c.	false	1
	d.	false	1

3	a.	200 + 10 + 9 + 100 + 30 + 7 =356	1
	b.	200 + 50 + 9 + 40 + 5 = 304	1
	c.	200 + 30 + 6 + 100 + 10 + 4 = 350	1

4.	a.	302	1
	b.	328	1
	c.	221	1

5.	a.	400	1
	b.	290	1

6.	a.	175 − 50 − 9 = 125 − 9 = 116	1
	b.	194 − 100 − 30 − 7 = 94 − 30 − 7 = 64 − 7 = 57	1

7.	a.	300 + 70 + 7 − 100 - 30 - 4 = 200 + 40 + 3 ✔ = 243 ✔	2
	b.	200 + 90 + 4 − 100 − 50 − 2 = 100 + 40 + 2 ✔ =142 ✔	2

8.	a.	10 x 5 + 3 x 5 **50 + 15** ✔ = 65 ✔	2

	b.	10 x 4 + 7 x 4 = 40 + 28 ✔ =68 ✔	2
9.	a.	12 + 12 + 12 + 12 + 12 + 12 = 72	1
	b.	14 + 14 + 14 + 14 + 14 = 70	1
10.	a.	54 – 6 – 6 – 6 – 6 – 6 – 6 – 6 – 6 – 6 = 0 means 54 ÷ 6 = 9	1
	b.	72 – 9 – 9 – 9 – 9 – 9 – 9 – 9 – 9 = 0 means 72 ÷ 9 = 8	1
11.	a.	40 ÷ 10 + 30 ÷ 10 = 4+ 3 = 7 or 60 ÷ 10 +10 ÷10 = 6 + 1 = 7 or any correct breakdown	1
	b.	40 ÷ 8 + 8 ÷ 8 = 5 + 1 = 6	1

Problem solving(Word Sums).
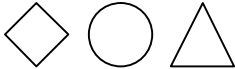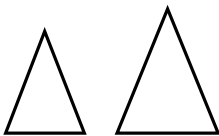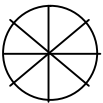
1.	a.	499 – 163 = 336	1
	b.	216 + 93 = 309	1
2.		Number of marbles = 125 – 82 = 43	1
3.		Number of sweets = 120 x 2 = 240 – 96 = 144	2
4.		Number of bars = 86 + 123 + 219 = 428	1
5.		Number of wheels = 6 x 3 = 18	1
6.		Number of carrots each 40 ÷ 5 = 8	1
7.	a.	Number each = 41 ÷ 2 = 20 and a half	1
	b.	Number of eggs = 49 ÷ 4 = 12 remainder 1	1
	c.	Number each = 22 ÷ 3 = 7 and 1 is left	1

Calculations involving money
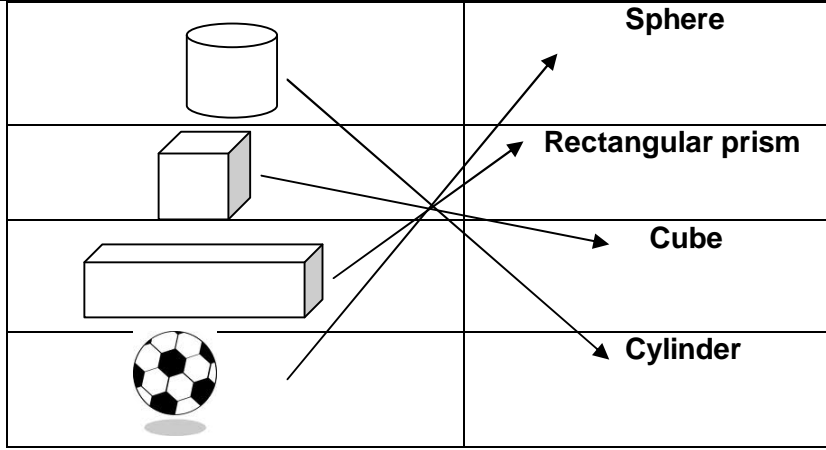
1.		Amount spent = 20 x 25c + 14 x R2,50 + 20 x R1,50 + 12 x R5 = R1 ✔ + R35 + ✔ R30 ✔ + R60 ✔ = R120 ✔	5
2.	a.	Cost = R10 + R3,50 + R3,50 ✔ = R17,00 ✔	2
	b.	Change = R5,00 + R5,00 + R5,00 = R15,00 ✔ R20,00 – R15,00 = R5,00 ✔ Or R20 – R5 x 3 ✔ = R20 – R15 = R5 ✔	2
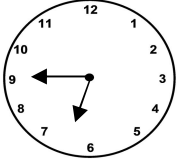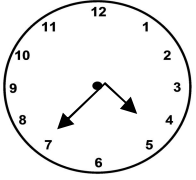
3.	Number of necklaces	1	2	3	4	5	10	20	5
	Cost in rands	4	8	**12**	**16**	**20**	**40**	**80**	

PATTERNS AND FUNCTIONS

1.		1
2.		1
3.	1 mark for correct sequence	1
4.		1
5.	a.	360, 363, 369, **372, 375,** ✔ **Counting forwards in 3s** ✔	**2**
	b.	440, 444, 448, **452, 456,** ✔ **Counting forwards in 4s** ✔	**2**
6.	B	1

7.	Necklaces	1	2	3	14	**50**	2
	Beads	10	20	30	**140**	500	

SPACE AND SHAPE

1.	A	1
2.	B	1
3.	6	1
4.		4

5.		2 ; 1 and 4	3
1.	a.	18 minutes past 8 OR 8:18 or 20:18	1
	b.	8 minutes past 10 OR 10:08 or 22:08	1
	c.	10 minutes to 2 OR 1:50 OR 13:50	1
2.	a.		1
	b.		1
3.		2:35	1
4.		45 minutes	1
5.		22 – 8 = 14 days	1
6.	a.	29 mm or 2,9 cm	1
	b.	20 mm or 2 cm	1

DATA HANDLING

1.	a.	20	1
	b.	Friday	1
	c.	55	1
	d.	55 – 40 = 15	1
2.	a.	4	1
	b.	Suzie	1
	c.	Lebo	1
	d.	9 + 4 = 13	1