

2009 Grade 3 Math Item Analysis- Multiple Choice

MATH Question 1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	50	.0	.0	.0
*	70	.0	.0	.1
1	10149	5.0	5.0	5.0
3	2475	1.2	1.2	6.2
4	1930	.9	.9	7.2
B	189404	92.8	92.8	100.0
Total	204078	100.0	100.0	

MATH Question 2

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	114	.1	.1	.1
*	80	.0	.0	.1
1	6773	3.3	3.3	3.4
2	9621	4.7	4.7	8.1
4	7404	3.6	3.6	11.8
C	180086	88.2	88.2	100.0
Total	204078	100.0	100.0	

MATH Question 3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	92	.0	.0	.0
*	83	.0	.0	.1
1	4731	2.3	2.3	2.4
3	6036	3.0	3.0	5.4
4	5075	2.5	2.5	7.8
B	188061	92.2	92.2	100.0
Total	204078	100.0	100.0	

MATH Question 4

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	277	.1	.1	.1
*	148	.1	.1	.2
1	9525	4.7	4.7	4.9
3	18796	9.2	9.2	14.1
4	27376	13.4	13.4	27.5
B	147956	72.5	72.5	100.0
Total	204078	100.0	100.0	

MATH Question 5

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	91	.0	.0	.0
*	157	.1	.1	.1
2	1614	.8	.8	.9
3	1395	.7	.7	1.6
4	2046	1.0	1.0	2.6
A	198775	97.4	97.4	100.0
Total	204078	100.0	100.0	

MATH Question 6

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	248	.1	.1	.1
*	207	.1	.1	.2
1	7335	3.6	3.6	3.8
2	10820	5.3	5.3	9.1
3	17676	8.7	8.7	17.8
D	167792	82.2	82.2	100.0
Total	204078	100.0	100.0	

MATH Question 7

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	119	.1	.1	.1
*	64	.0	.0	.1
2	8753	4.3	4.3	4.4
3	3874	1.9	1.9	6.3
4	3078	1.5	1.5	7.8
A	188190	92.2	92.2	100.0
Total	204078	100.0	100.0	

MATH Question 8

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	91	.0	.0	.0
*	51	.0	.0	.1
1	9294	4.6	4.6	4.6
3	2052	1.0	1.0	5.6
4	4660	2.3	2.3	7.9
B	187930	92.1	92.1	100.0
Total	204078	100.0	100.0	

MATH Question 9

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	169	.1	.1	.1
*	73	.0	.0	.1
1	9228	4.5	4.5	4.6
3	12251	6.0	6.0	10.6
4	11932	5.8	5.8	16.5
B	170425	83.5	83.5	100.0
Total	204078	100.0	100.0	

MATH Question 10

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	168	.1	.1	.1
*	174	.1	.1	.2
1	5638	2.8	2.8	2.9
2	5918	2.9	2.9	5.8
3	9294	4.6	4.6	10.4
D	182886	89.6	89.6	100.0
Total	204078	100.0	100.0	

MATH Question 11

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	142	.1	.1	.1
*	74	.0	.0	.1
2	10700	5.2	5.2	5.3
3	10033	4.9	4.9	10.3
4	5151	2.5	2.5	12.8
A	177978	87.2	87.2	100.0
Total	204078	100.0	100.0	

MATH Question 12

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	115	.1	.1	.1
*	80	.0	.0	.1
1	5029	2.5	2.5	2.6
2	9504	4.7	4.7	7.2
4	3116	1.5	1.5	8.7
C	186234	91.3	91.3	100.0
Total	204078	100.0	100.0	

MATH Question 13

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	213	.1	.1	.1
*	173	.1	.1	.2
1	11448	5.6	5.6	5.8
2	11348	5.6	5.6	11.4
3	3946	1.9	1.9	13.3
D	176950	86.7	86.7	100.0
Total	204078	100.0	100.0	

MATH Question 14

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	137	.1	.1	.1
*	107	.1	.1	.1
1	2425	1.2	1.2	1.3
3	8184	4.0	4.0	5.3
4	6033	3.0	3.0	8.3
B	187192	91.7	91.7	100.0
Total	204078	100.0	100.0	

MATH Question 15

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	145	.1	.1	.1
*	101	.0	.0	.1
1	1360	.7	.7	.8
2	1020	.5	.5	1.3
3	3172	1.6	1.6	2.8
D	198280	97.2	97.2	100.0
Total	204078	100.0	100.0	

MATH Question 16

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	343	.2	.2	.2
*	77	.0	.0	.2
1	16639	8.2	8.2	8.4
2	29587	14.5	14.5	22.9
4	15630	7.7	7.7	30.5
C	141802	69.5	69.5	100.0
Total	204078	100.0	100.0	

MATH Question 17

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	155	.1	.1	.1
*	61	.0	.0	.1
1	1599	.8	.8	.9
2	4355	2.1	2.1	3.0
3	40709	19.9	19.9	23.0
D	157199	77.0	77.0	100.0
Total	204078	100.0	100.0	

MATH Question 18

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	123	.1	.1	.1
*	81	.0	.0	.1
1	3433	1.7	1.7	1.8
2	6333	3.1	3.1	4.9
3	37556	18.4	18.4	23.3
D	156552	76.7	76.7	100.0
Total	204078	100.0	100.0	

MATH Question 19

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	183	.1	.1	.1
*	64	.0	.0	.1
2	4663	2.3	2.3	2.4
3	4310	2.1	2.1	4.5
4	5466	2.7	2.7	7.2
A	189392	92.8	92.8	100.0
Total	204078	100.0	100.0	

MATH Question 20

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	284	.1	.1	.1
*	117	.1	.1	.2
1	15370	7.5	7.5	7.7
2	2056	1.0	1.0	8.7
4	6631	3.2	3.2	12.0
C	179620	88.0	88.0	100.0
Total	204078	100.0	100.0	

MATH Question 21

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	232	.1	.1	.1
*	91	.0	.0	.2
2	3264	1.6	1.6	1.8
3	1341	.7	.7	2.4
4	6450	3.2	3.2	5.6
A	192700	94.4	94.4	100.0
Total	204078	100.0	100.0	

MATH Question 22

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	265	.1	.1	.1
*	135	.1	.1	.2
1	6231	3.1	3.1	3.2
2	10117	5.0	5.0	8.2
3	9192	4.5	4.5	12.7
D	178138	87.3	87.3	100.0
Total	204078	100.0	100.0	

MATH Question 23

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	345	.2	.2	.2
*	141	.1	.1	.2
1	13726	6.7	6.7	7.0
2	8100	4.0	4.0	10.9
3	6608	3.2	3.2	14.2
D	175158	85.8	85.8	100.0
Total	204078	100.0	100.0	

MATH Question 24

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	633	.3	.3	.3
*	427	.2	.2	.5
2	14612	7.2	7.2	7.7
3	13042	6.4	6.4	14.1
4	12588	6.2	6.2	20.2
A	162776	79.8	79.8	100.0
Total	204078	100.0	100.0	

MATH Question 25

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1234	.6	.6	.6
*	39	.0	.0	.6
1	14201	7.0	7.0	7.6
3	8274	4.1	4.1	11.6
4	9980	4.9	4.9	16.5
B	170350	83.5	83.5	100.0
Total	204078	100.0	100.0	

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MATH Question 26

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	53751	26.3	26.4	26.4
1	13658	6.7	6.7	33.1
2	136537	66.9	66.9	100.0
Total	203946	99.9	100.0	
Missing System	132	.1		
Total	204078	100.0		

MATH Question 27

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	33645	16.5	16.5	16.5
1	32907	16.1	16.1	32.6
2	137283	67.3	67.4	100.0
Total	203835	99.9	100.0	
Missing System	243	.1		
Total	204078	100.0		

MATH Question 28

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	8797	4.3	4.3	4.3
1	39398	19.3	19.3	23.6
2	155695	76.3	76.4	100.0
Total	203890	99.9	100.0	
Missing System	188	.1		
Total	204078	100.0		

MATH Question 29

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	34642	17.0	17.0	17.0
	1	31350	15.4	15.4	32.4
	2	137868	67.6	67.6	100.0
	Total	203860	99.9	100.0	
	Missing System	218	.1		
Total		204078	100.0		

MATH Question 30

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	20246	9.9	9.9	9.9
	1	16232	8.0	8.0	17.9
	2	36419	17.8	17.9	35.8
	3	130887	64.1	64.2	100.0
	Total	203784	99.9	100.0	
Missing System	294	.1			
Total		204078	100.0		

MATH Question 31

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3004	1.5	1.5	1.5
	1	6102	3.0	3.0	4.5
	2	56491	27.7	27.7	32.2
	3	138180	67.7	67.8	100.0
	Total	203777	99.9	100.0	
Missing System	301	.1			
Total		204078	100.0		

Statistics

		MATH Question 26	MATH Question 27	MATH Question 28	MATH Question 29
N	Valid	203946	203835	203890	203860
	Missing	132	243	188	218
Mean		1.41	1.51	1.72	1.51
Std. Deviation		.877	.762	.536	.768

Statistics

		MATH Question 30	MATH Question 31
N	Valid	203784	203777
	Missing	294	301
Mean		2.36	2.62
Std. Deviation		.993	.620