

2010 Grade 3 Mathematics Item Analysis- Multiple Choice Items

MATH Question 1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	74	.0	.0	.0
*	85	.0	.0	.1
1	3750	1.8	1.8	1.9
2	7375	3.6	3.6	5.6
3	3138	1.5	1.5	7.1
D	188755	92.9	92.9	100.0
Total	203177	100.0	100.0	

MATH Question 2

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	86	.0	.0	.0
*	72	.0	.0	.1
1	997	.5	.5	.6
2	8751	4.3	4.3	4.9
4	2442	1.2	1.2	6.1
C	190829	93.9	93.9	100.0
Total	203177	100.0	100.0	

MATH Question 3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	209	.1	.1	.1
*	150	.1	.1	.2
1	42201	20.8	20.8	20.9
2	11129	5.5	5.5	26.4
3	10628	5.2	5.2	31.7
D	138860	68.3	68.3	100.0
Total	203177	100.0	100.0	

MATH Question 4

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	175	.1	.1	.1
*	117	.1	.1	.1
1	16446	8.1	8.1	8.2
2	7979	3.9	3.9	12.2
4	15098	7.4	7.4	19.6
C	163362	80.4	80.4	100.0
Total	203177	100.0	100.0	

MATH Question 5

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	119	.1	.1	.1
*	154	.1	.1	.1
1	2619	1.3	1.3	1.4
3	4495	2.2	2.2	3.6
4	8299	4.1	4.1	7.7
B	187491	92.3	92.3	100.0
Total	203177	100.0	100.0	

MATH Question 6

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	161	.1	.1	.1
*	133	.1	.1	.1
1	13706	6.7	6.7	6.9
2	4495	2.2	2.2	9.1
3	8470	4.2	4.2	13.3
D	176212	86.7	86.7	100.0
Total	203177	100.0	100.0	

MATH Question 7

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	173	.1	.1	.1
*	70	.0	.0	.1
1	7457	3.7	3.7	3.8
2	12365	6.1	6.1	9.9
4	6894	3.4	3.4	13.3
C	176218	86.7	86.7	100.0
Total	203177	100.0	100.0	

MATH Question 8

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	155	.1	.1	.1
*	90	.0	.0	.1
2	9397	4.6	4.6	4.7
3	28850	14.2	14.2	18.9
4	21222	10.4	10.4	29.4
A	143463	70.6	70.6	100.0
Total	203177	100.0	100.0	

MATH Question 9

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	194	.1	.1	.1
*	72	.0	.0	.1
1	26889	13.2	13.2	13.4
2	12141	6.0	6.0	19.3
4	8525	4.2	4.2	23.5
C	155356	76.5	76.5	100.0
Total	203177	100.0	100.0	

MATH Question 10

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	147	.1	.1	.1
*	66	.0	.0	.1
2	4362	2.1	2.1	2.3
3	2340	1.2	1.2	3.4
4	8165	4.0	4.0	7.4
A	188097	92.6	92.6	100.0
Total	203177	100.0	100.0	

MATH Question 11

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	123	.1	.1	.1
*	88	.0	.0	.1
2	2774	1.4	1.4	1.5
3	1469	.7	.7	2.2
4	2818	1.4	1.4	3.6
A	195905	96.4	96.4	100.0
Total	203177	100.0	100.0	

MATH Question 12

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	194	.1	.1	.1
*	70	.0	.0	.1
1	37619	18.5	18.5	18.6
2	6809	3.4	3.4	22.0
4	6094	3.0	3.0	25.0
C	152391	75.0	75.0	100.0
Total	203177	100.0	100.0	

MATH Question 13

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	232	.1	.1	.1
*	197	.1	.1	.2
1	17483	8.6	8.6	8.8
2	25872	12.7	12.7	21.5
3	7762	3.8	3.8	25.4
D	151631	74.6	74.6	100.0
Total	203177	100.0	100.0	

MATH Question 14

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	185	.1	.1	.1
*	92	.0	.0	.1
1	8343	4.1	4.1	4.2
3	17606	8.7	8.7	12.9
4	5879	2.9	2.9	15.8
B	171072	84.2	84.2	100.0
Total	203177	100.0	100.0	

MATH Question 15

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	213	.1	.1	.1
*	158	.1	.1	.2
2	3932	1.9	1.9	2.1
3	2852	1.4	1.4	3.5
4	3943	1.9	1.9	5.5
A	192079	94.5	94.5	100.0
Total	203177	100.0	100.0	

MATH Question 16

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	226	.1	.1	.1
*	183	.1	.1	.2
1	3117	1.5	1.5	1.7
2	3708	1.8	1.8	3.6
3	7481	3.7	3.7	7.2
D	188462	92.8	92.8	100.0
Total	203177	100.0	100.0	

MATH Question 17

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	186	.1	.1	.1
*	73	.0	.0	.1
1	15185	7.5	7.5	7.6
3	5378	2.6	2.6	10.2
4	5388	2.7	2.7	12.9
B	176967	87.1	87.1	100.0
Total	203177	100.0	100.0	

MATH Question 18

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	142	.1	.1	.1
*	91	.0	.0	.1
2	2153	1.1	1.1	1.2
3	14824	7.3	7.3	8.5
4	2987	1.5	1.5	9.9
A	182980	90.1	90.1	100.0
Total	203177	100.0	100.0	

MATH Question 19

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	247	.1	.1	.1
*	106	.1	.1	.2
1	3130	1.5	1.5	1.7
2	8755	4.3	4.3	6.0
3	4665	2.3	2.3	8.3
D	186274	91.7	91.7	100.0
Total	203177	100.0	100.0	

MATH Question 20

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	249	.1	.1	.1
*	116	.1	.1	.2
1	4012	2.0	2.0	2.2
3	2073	1.0	1.0	3.2
4	6843	3.4	3.4	6.5
B	189884	93.5	93.5	100.0
Total	203177	100.0	100.0	

MATH Question 21

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	287	.1	.1	.1
*	348	.2	.2	.3
1	3061	1.5	1.5	1.8
2	3354	1.7	1.7	3.5
3	2918	1.4	1.4	4.9
D	193209	95.1	95.1	100.0
Total	203177	100.0	100.0	

MATH Question 22

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	253	.1	.1	.1
*	64	.0	.0	.2
2	5100	2.5	2.5	2.7
3	2756	1.4	1.4	4.0
4	2099	1.0	1.0	5.1
A	192905	94.9	94.9	100.0
Total	203177	100.0	100.0	

MATH Question 23

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	324	.2	.2	.2
*	77	.0	.0	.2
1	6662	3.3	3.3	3.5
3	2430	1.2	1.2	4.7
4	3106	1.5	1.5	6.2
B	190578	93.8	93.8	100.0
Total	203177	100.0	100.0	

MATH Question 24

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	542	.3	.3	.3
*	69	.0	.0	.3
1	12830	6.3	6.3	6.6
2	11683	5.8	5.8	12.4
3	15012	7.4	7.4	19.8
D	163041	80.2	80.2	100.0
Total	203177	100.0	100.0	

MATH Question 25

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1225	.6	.6	.6
*	67	.0	.0	.6
1	14803	7.3	7.3	7.9
2	9877	4.9	4.9	12.8
3	15112	7.4	7.4	20.2
D	162093	79.8	79.8	100.0
Total	203177	100.0	100.0	

2010 Grade 3 Mathematics Item Analysis- Constructed Response Items

Descriptive Statistics

	N	Mean		Std.
	Statistic	Statistic	Std. Error	Statistic
MATH Q26 Score Value	202989	1.7949	.00122	.55098
MATH Q27 Score Value	202992	1.7489	.00129	.58096
MATH Q28 Score Value	202945	1.7271	.00114	.51466
MATH Q29 Score Value	203020	1.3936	.00167	.75305
MATH Q30 Score Value	203049	2.4077	.00193	.87146
MATH Q31 Score Value	202893	2.0821	.00221	.99541
Valid N (listwise)	202576			

2010 Grade 3 Mathematics Item Analysis- SPI Items

Descriptive Statistics

	N	Mean		Std.
	Statistic	Statistic	Std. Error	Statistic
MATH Standard 1 Performance Index	203173	83.18	.037	16.815
MATH Standard 2 Performance Index	203173	87.64	.034	15.228
MATH Standard 3 Performance Index	203173	79.96	.036	16.314
MATH Standard 4 Performance Index	203173	89.78	.030	13.627
MATH Standard 5 Performance Index	203173	83.34	.044	19.822
Valid N (listwise)	203173			