

2011 Grade 5 Math Item Analysis Multiple Choice Questions

MATH Question 1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	176	.1	.1	.1
*	28	.0	.0	.1
1	11598	5.6	5.6	5.7
3	7272	3.5	3.5	9.2
4	18579	8.9	8.9	18.1
B	170556	81.9	81.9	100.0
Total	208209	100.0	100.0	

MATH Question 2

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	129	.1	.1	.1
*	58	.0	.0	.1
2	63494	30.5	30.5	30.6
3	7268	3.5	3.5	34.1
4	11479	5.5	5.5	39.6
A	125781	60.4	60.4	100.0
Total	208209	100.0	100.0	

MATH Question 3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	474	.2	.2	.2
*	83	.0	.0	.3
1	70970	34.1	34.1	34.4
2	28430	13.7	13.7	48.0
4	32222	15.5	15.5	63.5
C	76030	36.5	36.5	100.0
Total	208209	100.0	100.0	

MATH Question 4

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	185	.1	.1	.1
*	99	.0	.0	.1
1	5932	2.8	2.8	3.0
2	24370	11.7	11.7	14.7
3	24318	11.7	11.7	26.4
D	153305	73.6	73.6	100.0
Total	208209	100.0	100.0	

MATH Question 5

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	457	.2	.2	.2
*	51	.0	.0	.2
2	15384	7.4	7.4	7.6
3	17221	8.3	8.3	15.9
4	14005	6.7	6.7	22.6
A	161091	77.4	77.4	100.0
Total	208209	100.0	100.0	

MATH Question 6

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	136	.1	.1	.1
*	47	.0	.0	.1
1	3562	1.7	1.7	1.8
3	3361	1.6	1.6	3.4
4	1753	.8	.8	4.3
B	199350	95.7	95.7	100.0
Total	208209	100.0	100.0	

MATH Question 7

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	293	.1	.1	.1
*	101	.0	.0	.2
1	41106	19.7	19.7	19.9
2	18788	9.0	9.0	29.0
3	28373	13.6	13.6	42.6
D	119548	57.4	57.4	100.0
Total	208209	100.0	100.0	

MATH Question 8

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	138	.1	.1	.1
*	91	.0	.0	.1
1	52751	25.3	25.3	25.4
2	7853	3.8	3.8	29.2
4	15658	7.5	7.5	36.7
C	131718	63.3	63.3	100.0
Total	208209	100.0	100.0	

MATH Question 9

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	247	.1	.1	.1
*	81	.0	.0	.2
1	20789	10.0	10.0	10.1
2	51840	24.9	24.9	35.0
4	57487	27.6	27.6	62.7
C	77765	37.3	37.3	100.0
Total	208209	100.0	100.0	

MATH Question 10

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	309	.1	.1	.1
*	30	.0	.0	.2
1	21720	10.4	10.4	10.6
3	42612	20.5	20.5	31.1
4	10690	5.1	5.1	36.2
B	132848	63.8	63.8	100.0
Total	208209	100.0	100.0	

MATH Question 11

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	198	.1	.1	.1
*	32	.0	.0	.1
1	22343	10.7	10.7	10.8
3	18164	8.7	8.7	19.6
4	8179	3.9	3.9	23.5
B	159293	76.5	76.5	100.0
Total	208209	100.0	100.0	

MATH Question 12

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	323	.2	.2	.2
*	67	.0	.0	.2
1	13935	6.7	6.7	6.9
2	25869	12.4	12.4	19.3
4	45182	21.7	21.7	41.0
C	122833	59.0	59.0	100.0
Total	208209	100.0	100.0	

MATH Question 13

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	169	.1	.1	.1
*	52	.0	.0	.1
1	18907	9.1	9.1	9.2
2	26194	12.6	12.6	21.8
4	10224	4.9	4.9	26.7
C	152663	73.3	73.3	100.0
Total	208209	100.0	100.0	

MATH Question 14

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	583	.3	.3	.3
*	60	.0	.0	.3
2	35415	17.0	17.0	17.3
3	70481	33.9	33.9	51.2
4	16410	7.9	7.9	59.1
A	85260	40.9	40.9	100.0
Total	208209	100.0	100.0	

MATH Question 15

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	343	.2	.2	.2
*	76	.0	.0	.2
2	29788	14.3	14.3	14.5
3	13280	6.4	6.4	20.9
4	7440	3.6	3.6	24.5
A	157282	75.5	75.5	100.0
Total	208209	100.0	100.0	

MATH Question 16

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	210	.1	.1	.1
*	85	.0	.0	.1
1	9579	4.6	4.6	4.7
2	13187	6.3	6.3	11.1
3	15555	7.5	7.5	18.5
D	169593	81.5	81.5	100.0
Total	208209	100.0	100.0	

MATH Question 17

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	452	.2	.2	.2
*	68	.0	.0	.2
1	41975	20.2	20.2	20.4
3	16540	7.9	7.9	28.4
4	17443	8.4	8.4	36.7
B	131731	63.3	63.3	100.0
Total	208209	100.0	100.0	

MATH Question 18

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	199	.1	.1	.1
*	115	.1	.1	.2
1	5193	2.5	2.5	2.6
2	6779	3.3	3.3	5.9
3	3588	1.7	1.7	7.6
D	192335	92.4	92.4	100.0
Total	208209	100.0	100.0	

MATH Question 19

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	434	.2	.2	.2
*	61	.0	.0	.2
1	48776	23.4	23.4	23.7
3	21283	10.2	10.2	33.9
4	15480	7.4	7.4	41.3
B	122175	58.7	58.7	100.0
Total	208209	100.0	100.0	

MATH Question 20

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	230	.1	.1	.1
*	31	.0	.0	.1
1	11970	5.7	5.7	5.9
2	6527	3.1	3.1	9.0
4	7985	3.8	3.8	12.8
C	181466	87.2	87.2	100.0
Total	208209	100.0	100.0	

MATH Question 21

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	146	.1	.1	.1
*	55	.0	.0	.1
2	1846	.9	.9	1.0
3	5343	2.6	2.6	3.5
4	4981	2.4	2.4	5.9
A	195838	94.1	94.1	100.0
Total	208209	100.0	100.0	

MATH Question 22

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	242	.1	.1	.1
*	89	.0	.0	.2
1	8064	3.9	3.9	4.0
2	13832	6.6	6.6	10.7
3	22568	10.8	10.8	21.5
D	163414	78.5	78.5	100.0
Total	208209	100.0	100.0	

MATH Question 23

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	611	.3	.3	.3
*	71	.0	.0	.3
1	27584	13.2	13.2	13.6
3	20141	9.7	9.7	23.2
4	71334	34.3	34.3	57.5
B	88468	42.5	42.5	100.0
Total	208209	100.0	100.0	

MATH Question 24

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	287	.1	.1	.1
*	58	.0	.0	.2
2	7603	3.7	3.7	3.8
3	11309	5.4	5.4	9.2
4	13324	6.4	6.4	15.6
A	175628	84.4	84.4	100.0
Total	208209	100.0	100.0	

MATH Question 25

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	355	.2	.2	.2
*	71	.0	.0	.2
2	9267	4.5	4.5	4.7
3	31582	15.2	15.2	19.8
4	10644	5.1	5.1	24.9
A	156290	75.1	75.1	100.0
Total	208209	100.0	100.0	

MATH Question 26

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	403	.2	.2	.2
*	51	.0	.0	.2
1	13558	6.5	6.5	6.7
2	24356	11.7	11.7	18.4
4	7545	3.6	3.6	22.1
C	162296	77.9	77.9	100.0
Total	208209	100.0	100.0	

MATH Question 27

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	791	.4	.4	.4
*	100	.0	.0	.4
1	44437	21.3	21.3	21.8
2	37087	17.8	17.8	39.6
3	18383	8.8	8.8	48.4
D	107411	51.6	51.6	100.0
Total	208209	100.0	100.0	

MATH Question 28

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	427	.2	.2	.2
*	76	.0	.0	.2
2	11383	5.5	5.5	5.7
3	19794	9.5	9.5	15.2
4	4685	2.3	2.3	17.5
A	171844	82.5	82.5	100.0
Total	208209	100.0	100.0	

MATH Question 29

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	581	.3	.3	.3
*	64	.0	.0	.3
2	54516	26.2	26.2	26.5
3	24141	11.6	11.6	38.1
4	16159	7.8	7.8	45.8
A	112748	54.2	54.2	100.0
Total	208209	100.0	100.0	

MATH Question 30

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	561	.3	.3	.3
*	52	.0	.0	.3
1	15033	7.2	7.2	7.5
2	7084	3.4	3.4	10.9
4	6335	3.0	3.0	14.0
C	179144	86.0	86.0	100.0
Total	208209	100.0	100.0	

MATH Question 31

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	697	.3	.3	.3
*	63	.0	.0	.4
2	19658	9.4	9.4	9.8
3	22020	10.6	10.6	20.4
4	17188	8.3	8.3	28.6
A	148583	71.4	71.4	100.0
Total	208209	100.0	100.0	

MATH Question 32

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	602	.3	.3	.3
*	97	.0	.0	.3
1	19059	9.2	9.2	9.5
3	16879	8.1	8.1	17.6
4	31239	15.0	15.0	32.6
B	140333	67.4	67.4	100.0
Total	208209	100.0	100.0	

MATH Question 33

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	916	.4	.4	.4
*	104	.0	.0	.5
1	11617	5.6	5.6	6.1
2	31260	15.0	15.0	21.1
4	58559	28.1	28.1	49.2
C	105753	50.8	50.8	100.0
Total	208209	100.0	100.0	

MATH Question 34

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	877	.4	.4	.4
*	93	.0	.0	.5
2	45424	21.8	21.8	22.3
3	36503	17.5	17.5	39.8
4	36460	17.5	17.5	57.3
A	88852	42.7	42.7	100.0
Total	208209	100.0	100.0	

MATH Question 35

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	945	.5	.5	.5
*	86	.0	.0	.5
1	16509	7.9	7.9	8.4
2	40892	19.6	19.6	28.1
4	32532	15.6	15.6	43.7
C	117245	56.3	56.3	100.0
Total	208209	100.0	100.0	

MATH Question 36

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1122	.5	.5	.5
*	87	.0	.0	.6
1	26444	12.7	12.7	13.3
3	12446	6.0	6.0	19.3
4	25779	12.4	12.4	31.6
B	142331	68.4	68.4	100.0
Total	208209	100.0	100.0	

MATH Question 37

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1370	.7	.7	.7
*	79	.0	.0	.7
2	19094	9.2	9.2	9.9
3	49947	24.0	24.0	33.9
4	11907	5.7	5.7	39.6
A	125812	60.4	60.4	100.0
Total	208209	100.0	100.0	

MATH Question 38

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1569	.8	.8	.8
*	82	.0	.0	.8
1	19740	9.5	9.5	10.3
3	31978	15.4	15.4	25.6
4	72387	34.8	34.8	60.4
B	82453	39.6	39.6	100.0
Total	208209	100.0	100.0	

MATH Question 39

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1676	.8	.8	.8
*	88	.0	.0	.8
1	20649	9.9	9.9	10.8
2	21827	10.5	10.5	21.2
3	18703	9.0	9.0	30.2
D	145266	69.8	69.8	100.0
Total	208209	100.0	100.0	

MATH Question 40

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1818	.9	.9	.9
*	46	.0	.0	.9
1	7292	3.5	3.5	4.4
3	6295	3.0	3.0	7.4
4	3680	1.8	1.8	9.2
B	189078	90.8	90.8	100.0
Total	208209	100.0	100.0	

MATH Question 41

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2221	1.1	1.1	1.1
*	18	.0	.0	1.1
1	13200	6.3	6.3	7.4
2	9432	4.5	4.5	11.9
4	9004	4.3	4.3	16.3
C	174334	83.7	83.7	100.0
Total	208209	100.0	100.0	

2011 Grade 5 Math Constructed Response Items

Descriptive Statistics

	N	Mean	Std. Deviation
MATH Question 42	207647	1.18	.669
MATH Question 43	207406	1.18	.756
MATH Question 44	207766	1.12	.767
MATH Question 45	207924	1.21	.808
MATH Question 46	207045	1.67	.920
MATH Question 47	207851	2.05	1.075
MATH Question 48	207579	1.56	.950
MATH Question 49	207752	1.99	.998
Valid N (listwise)	205625		

2011 Grade 5 Math SPIs

Descriptive Statistics

	N	Mean		Std.
	Statistic	Statistic	Std. Error	Statistic
MATH Standard 1 Performance Index	208205	64.32	.046	21.002
MATH Standard 2 Performance Index	208205	59.54	.038	17.465
MATH Standard 3 Performance Index	208205	65.43	.041	18.773
MATH Standard 4 Performance Index	208205	69.64	.038	17.460
MATH Standard 5 Performance Index	208205	67.37	.049	22.177
Valid N (listwise)	208205			