

2011 Grade 8 Math Analysis Multiple Choice Questions

MATH Question 1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	405	.2	.2	.2
*	32	.0	.0	.2
1	42508	19.2	19.2	19.4
2	40574	18.3	18.3	37.7
3	52584	23.8	23.8	61.5
D	85203	38.5	38.5	100.0
Total	221306	100.0	100.0	

MATH Question 2

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	246	.1	.1	.1
*	43	.0	.0	.1
1	12495	5.6	5.6	5.8
2	8594	3.9	3.9	9.7
4	30009	13.6	13.6	23.2
C	169919	76.8	76.8	100.0
Total	221306	100.0	100.0	

MATH Question 3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	974	.4	.4	.4
*	36	.0	.0	.5
1	24427	11.0	11.0	11.5
2	50533	22.8	22.8	34.3
3	64701	29.2	29.2	63.6
D	80635	36.4	36.4	100.0
Total	221306	100.0	100.0	

MATH Question 4

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	263	.1	.1	.1
*	37	.0	.0	.1
2	44536	20.1	20.1	20.3
3	10137	4.6	4.6	24.8
4	11322	5.1	5.1	30.0
A	155011	70.0	70.0	100.0
Total	221306	100.0	100.0	

MATH Question 5

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	241	.1	.1	.1
*	24	.0	.0	.1
1	8430	3.8	3.8	3.9
2	42926	19.4	19.4	23.3
4	8997	4.1	4.1	27.4
C	160688	72.6	72.6	100.0
Total	221306	100.0	100.0	

MATH Question 6

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	132	.1	.1	.1
*	39	.0	.0	.1
1	63930	28.9	28.9	29.0
3	4006	1.8	1.8	30.8
4	10642	4.8	4.8	35.6
B	142557	64.4	64.4	100.0
Total	221306	100.0	100.0	

MATH Question 7

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	403	.2	.2	.2
*	36	.0	.0	.2
2	17142	7.7	7.7	7.9
3	20773	9.4	9.4	17.3
4	42032	19.0	19.0	36.3
A	140920	63.7	63.7	100.0
Total	221306	100.0	100.0	

MATH Question 8

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	191	.1	.1	.1
*	36	.0	.0	.1
1	6954	3.1	3.1	3.2
3	19966	9.0	9.0	12.3
4	41790	18.9	18.9	31.2
B	152369	68.8	68.8	100.0
Total	221306	100.0	100.0	

MATH Question 9

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	180	.1	.1	.1
*	53	.0	.0	.1
1	42898	19.4	19.4	19.5
2	19407	8.8	8.8	28.3
3	7493	3.4	3.4	31.6
D	151275	68.4	68.4	100.0
Total	221306	100.0	100.0	

MATH Question 10

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	331	.1	.1	.1
*	41	.0	.0	.2
1	18936	8.6	8.6	8.7
3	12720	5.7	5.7	14.5
4	18577	8.4	8.4	22.9
B	170701	77.1	77.1	100.0
Total	221306	100.0	100.0	

MATH Question 11

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	442	.2	.2	.2
*	39	.0	.0	.2
1	6669	3.0	3.0	3.2
3	35107	15.9	15.9	19.1
4	27717	12.5	12.5	31.6
B	151332	68.4	68.4	100.0
Total	221306	100.0	100.0	

MATH Question 12

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	244	.1	.1	.1
*	19	.0	.0	.1
2	38040	17.2	17.2	17.3
3	10219	4.6	4.6	21.9
4	23853	10.8	10.8	32.7
A	148931	67.3	67.3	100.0
Total	221306	100.0	100.0	

MATH Question 13

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	563	.3	.3	.3
*	35	.0	.0	.3
2	41045	18.5	18.5	18.8
3	37527	17.0	17.0	35.8
4	29846	13.5	13.5	49.3
A	112290	50.7	50.7	100.0
Total	221306	100.0	100.0	

MATH Question 14

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	311	.1	.1	.1
*	59	.0	.0	.2
1	33751	15.3	15.3	15.4
2	18231	8.2	8.2	23.7
3	36822	16.6	16.6	40.3
D	132132	59.7	59.7	100.0
Total	221306	100.0	100.0	

MATH Question 15

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	197	.1	.1	.1
*	28	.0	.0	.1
2	61487	27.8	27.8	27.9
3	12057	5.4	5.4	33.3
4	9130	4.1	4.1	37.5
A	138407	62.5	62.5	100.0
Total	221306	100.0	100.0	

MATH Question 16

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	165	.1	.1	.1
*	30	.0	.0	.1
2	31519	14.2	14.2	14.3
3	5580	2.5	2.5	16.9
4	3942	1.8	1.8	18.6
A	180070	81.4	81.4	100.0
Total	221306	100.0	100.0	

MATH Question 17

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	486	.2	.2	.2
*	34	.0	.0	.2
1	21122	9.5	9.5	9.8
3	81266	36.7	36.7	46.5
4	13119	5.9	5.9	52.4
B	105279	47.6	47.6	100.0
Total	221306	100.0	100.0	

MATH Question 18

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	506	.2	.2	.2
*	26	.0	.0	.2
1	17997	8.1	8.1	8.4
2	69061	31.2	31.2	39.6
4	5662	2.6	2.6	42.1
C	128054	57.9	57.9	100.0
Total	221306	100.0	100.0	

MATH Question 19

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	601	.3	.3	.3
*	49	.0	.0	.3
2	34642	15.7	15.7	15.9
3	51939	23.5	23.5	39.4
4	21250	9.6	9.6	49.0
A	112825	51.0	51.0	100.0
Total	221306	100.0	100.0	

MATH Question 20

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	175	.1	.1	.1
*	41	.0	.0	.1
1	31068	14.0	14.0	14.1
3	4855	2.2	2.2	16.3
4	4029	1.8	1.8	18.2
B	181138	81.8	81.8	100.0
Total	221306	100.0	100.0	

MATH Question 21

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	329	.1	.1	.1
*	43	.0	.0	.2
1	38346	17.3	17.3	17.5
2	43491	19.7	19.7	37.1
4	51729	23.4	23.4	60.5
C	87368	39.5	39.5	100.0
Total	221306	100.0	100.0	

MATH Question 22

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	635	.3	.3	.3
*	35	.0	.0	.3
1	50053	22.6	22.6	22.9
2	44916	20.3	20.3	43.2
4	46102	20.8	20.8	64.0
C	79565	36.0	36.0	100.0
Total	221306	100.0	100.0	

MATH Question 23

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	228	.1	.1	.1
*	27	.0	.0	.1
2	23239	10.5	10.5	10.6
3	17532	7.9	7.9	18.5
4	14242	6.4	6.4	25.0
A	166038	75.0	75.0	100.0
Total	221306	100.0	100.0	

MATH Question 24

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	807	.4	.4	.4
*	41	.0	.0	.4
1	36693	16.6	16.6	17.0
3	32499	14.7	14.7	31.6
4	21596	9.8	9.8	41.4
B	129670	58.6	58.6	100.0
Total	221306	100.0	100.0	

MATH Question 25

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	653	.3	.3	.3
*	38	.0	.0	.3
2	16418	7.4	7.4	7.7
3	47748	21.6	21.6	29.3
4	11230	5.1	5.1	34.4
A	145219	65.6	65.6	100.0
Total	221306	100.0	100.0	

MATH Question 26

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	321	.1	.1	.1
*	50	.0	.0	.2
1	10110	4.6	4.6	4.7
3	10235	4.6	4.6	9.4
4	28257	12.8	12.8	22.1
B	172333	77.9	77.9	100.0
Total	221306	100.0	100.0	

MATH Question 27

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	900	.4	.4	.4
*	57	.0	.0	.4
1	41218	18.6	18.6	19.1
2	24902	11.3	11.3	30.3
3	43925	19.8	19.8	50.2
D	110304	49.8	49.8	100.0
Total	221306	100.0	100.0	

MATH Question 28

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	628	.3	.3	.3
*	41	.0	.0	.3
1	29405	13.3	13.3	13.6
2	18209	8.2	8.2	21.8
4	27239	12.3	12.3	34.1
C	145784	65.9	65.9	100.0
Total	221306	100.0	100.0	

MATH Question 29

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1024	.5	.5	.5
*	41	.0	.0	.5
1	21247	9.6	9.6	10.1
3	51010	23.0	23.0	33.1
4	46323	20.9	20.9	54.1
B	101661	45.9	45.9	100.0
Total	221306	100.0	100.0	

MATH Question 30

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	443	.2	.2	.2
*	50	.0	.0	.2
1	29597	13.4	13.4	13.6
2	23177	10.5	10.5	24.1
4	12141	5.5	5.5	29.6
C	155898	70.4	70.4	100.0
Total	221306	100.0	100.0	

MATH Question 31

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	925	.4	.4	.4
*	58	.0	.0	.4
1	43776	19.8	19.8	20.2
2	28349	12.8	12.8	33.0
4	14621	6.6	6.6	39.6
C	133577	60.4	60.4	100.0
Total	221306	100.0	100.0	

MATH Question 32

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1066	.5	.5	.5
*	62	.0	.0	.5
1	58202	26.3	26.3	26.8
3	29798	13.5	13.5	40.3
4	31465	14.2	14.2	54.5
B	100713	45.5	45.5	100.0
Total	221306	100.0	100.0	

MATH Question 33

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	664	.3	.3	.3
*	53	.0	.0	.3
1	52558	23.7	23.7	24.1
3	14417	6.5	6.5	30.6
4	14064	6.4	6.4	36.9
B	139550	63.1	63.1	100.0
Total	221306	100.0	100.0	

MATH Question 34

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	663	.3	.3	.3
*	35	.0	.0	.3
1	19884	9.0	9.0	9.3
2	14236	6.4	6.4	15.7
4	11926	5.4	5.4	21.1
C	174562	78.9	78.9	100.0
Total	221306	100.0	100.0	

MATH Question 35

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	927	.4	.4	.4
*	58	.0	.0	.4
2	29928	13.5	13.5	14.0
3	15005	6.8	6.8	20.7
4	102293	46.2	46.2	67.0
A	73095	33.0	33.0	100.0
Total	221306	100.0	100.0	

MATH Question 36

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	758	.3	.3	.3
*	72	.0	.0	.4
2	35495	16.0	16.0	16.4
3	12822	5.8	5.8	22.2
4	17764	8.0	8.0	30.2
A	154395	69.8	69.8	100.0
Total	221306	100.0	100.0	

MATH Question 37

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	884	.4	.4	.4
*	64	.0	.0	.4
1	37622	17.0	17.0	17.4
2	21085	9.5	9.5	27.0
3	32136	14.5	14.5	41.5
D	129515	58.5	58.5	100.0
Total	221306	100.0	100.0	

MATH Question 38

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1311	.6	.6	.6
*	61	.0	.0	.6
2	36807	16.6	16.6	17.3
3	49538	22.4	22.4	39.6
4	11660	5.3	5.3	44.9
A	121929	55.1	55.1	100.0
Total	221306	100.0	100.0	

MATH Question 39

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1342	.6	.6	.6
*	56	.0	.0	.6
1	53407	24.1	24.1	24.8
2	19403	8.8	8.8	33.5
4	33275	15.0	15.0	48.6
C	113823	51.4	51.4	100.0
Total	221306	100.0	100.0	

MATH Question 40

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1095	.5	.5	.5
*	34	.0	.0	.5
2	28872	13.0	13.0	13.6
3	21539	9.7	9.7	23.3
4	4345	2.0	2.0	25.3
A	165421	74.7	74.7	100.0
Total	221306	100.0	100.0	

MATH Question 41

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1220	.6	.6	.6
*	47	.0	.0	.6
2	33925	15.3	15.3	15.9
3	6790	3.1	3.1	19.0
4	3848	1.7	1.7	20.7
A	175476	79.3	79.3	100.0
Total	221306	100.0	100.0	

MATH Question 42

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1415	.6	.6	.6
*	36	.0	.0	.7
1	15783	7.1	7.1	7.8
2	21883	9.9	9.9	17.7
3	29671	13.4	13.4	31.1
D	152518	68.9	68.9	100.0
Total	221306	100.0	100.0	

2011 Grade 8 Math Constructed Response Items

Descriptive Statistics

	N	Mean	Std. Deviation
MATH Question 43	219547	.93	.954
MATH Question 44	220376	1.05	.737
MATH Question 45	219548	.98	.660
MATH Question 46	217613	1.06	.877
MATH Question 47	219349	1.00	.925
MATH Question 48	220088	1.04	.666
MATH Question 49	217800	.94	.925
MATH Question 50	217947	.84	.829
MATH Question 51	219846	1.28	1.366
MATH Question 52	218968	1.51	1.169
MATH Question 53	218032	1.30	1.245
MATH Question 54	217822	1.72	1.078
Valid N (listwise)	209462		

2011 Grade 8 Math SPIs

Descriptive Statistics

	N	Mean		Std.
	Statistic	Statistic	Std. Error	Statistic
MATH Standard 1 Performance Index	221301	47.32	.052	24.267
MATH Standard 2 Performance Index	221301	57.12	.053	25.136
MATH Standard 3 Performance Index	221301	61.19	.043	20.044
MATH Standard 4 Performance Index	221301	48.57	.052	24.663
MATH Standard 5 Performance Index	0			
Valid N (listwise)	0			