

Tables for  
CMAS Technical Report  
Spring 2014

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**Table 1. CMAS Subject and Grade Combinations**

	Grade				
Subject	4	5	7	8	HS
Science		X		X	X
Social Studies	X		X		X

**Table 2. Scale Score Ranges**

	<b>Limited Command</b>	<b>Moderate Command</b>	<b>Strong Command</b>	<b>Distinguished Command</b>
Grade 4 Social Studies	300–556	557–698	699–792	793–900
Grade 7 Social Studies	300–591	592–700	701–769	770–900
Grade 5 Science	300–545	546–649	650–770	771–900
Grade 8 Science	300–555	556–651	652–784	785–900

**Table 3. Coefficient Alpha**

Content Area	Grade	Content Standard 1	Content Standard 2	Content Standard 3	Content Standard 4	Full Test
Social Studies	4	0.68	0.70	0.70	0.60	0.89
	7	0.70	0.65	0.75	0.71	0.90
Science	5	0.77	0.80	0.79	0.79	0.91
	8	0.80	0.78	0.81	0.76	0.92

**Table 4. Grade 4 Performance by Subgroups**

<b>Subgroup</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>Alpha</b>
No Disability	57,738	609	100.5	300	900	0.88
Disability	6,392	485	112.0	300	862	0.86
No IEP	57,749	609	100.6	300	900	0.88
IEP	6,381	486	111.8	300	862	0.86
No Accommodation	53,086	616	97.9	300	900	0.88
Accommodation	11,044	504	108.2	300	859	0.85
Am. Indian/Alaska Native	476	544	107.9	300	798	0.87
Asian	2,012	634	107.5	300	900	0.89
Black	2,863	544	112.0	300	894	0.87
Hispanic	21,316	551	103.6	300	900	0.86
White	34,771	627	98.9	300	900	0.88
Hawaiian/Pacific Islander	146	593	108.4	300	802	0.89
Two or More Races	2,197	610	105.4	300	894	0.89
Not Free Lunch Eligible	35,451	636	95.3	300	900	0.88
Free Lunch Eligible	23,987	543	103.7	300	900	0.85
Reduced Lunch Eligible	4,477	581	98.3	300	898	0.86
Female	31,424	605	104.4	300	900	0.89
Male	32,706	589	111.3	300	900	0.89
Language Proficiency NA	51,575	611	104.5	300	900	0.89
Language Proficiency NEP	992	440	103.5	300	770	0.78
Language Proficiency LEP	8,519	520	91.7	300	837	0.80
Language Proficiency FEP	3,044	630	79.0	300	883	0.84
Not Migrant Or Immigrant	63,548	598	108.0	300	849	0.89
Migrant	128	531	99.8	300	773	0.83
Immigrant	448	528	123.0	300	900	0.89
Migrant and Immigrant*	n/a	n/a	n/a	n/a	n/a	n/a

\*n-count less than 10.

**Table 5. Grade 5 Performance by Subgroups**

<b>Subgroup</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>Alpha</b>
No Disability	57,686	612	96.9	300	900	0.90
Disability	6,697	493	108.0	300	851	0.91
No IEP	57,712	612	97.0	300	900	0.90
IEP	6,671	493	107.9	300	851	0.91
No Accommodation	53,854	617	94.8	300	900	0.90
Accommodation	10,529	510	106.7	300	900	0.91
Am. Indian/Alaska Native	456	558	102.6	300	825	0.91
Asian	2,080	624	109.3	300	900	0.91
Black	2,904	537	104.2	300	884	0.90
Hispanic	21,234	548	98.4	300	868	0.90
White	34,857	634	92.4	300	900	0.89
Hawaiian/Pacific Islander	159	579	104.7	300	842	0.90
Two or More Races	2,296	619	98.2	300	900	0.91
Not Free Lunch Eligible	35,825	638	90.9	300	900	0.89
Free Lunch Eligible	23,758	544	99.5	300	868	0.90
Reduced Lunch Eligible	4,544	581	95.2	300	869	0.90
Female	31,695	602	102.9	300	900	0.91
Male	32,688	597	106.2	300	900	0.92
Language Proficiency NA	51,924	615	99.3	300	900	0.91
Language Proficiency NEP	907	421	96.9	300	742	0.88
Language Proficiency LEP	7,667	506	82.8	300	860	0.85
Language Proficiency FEP	3,885	612	75.4	300	887	0.85
Not Migrant or Immigrant	63,803	600	104.0	300	900	0.91
Migrant	158	514	96.0	300	725	0.89
Immigrant	407	500	131.1	300	803	0.93
Migrant and Immigrant						



**Table 6. Grade 7 Performance by Subgroups**

<b>Subgroup</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>Alpha</b>
No Disability	56,804	610	99.6	300	900	0.90
Disability	5,951	477	100.2	300	853	0.85
No IEP	56,842	610	99.8	300	900	0.90
IEP	5,913	477	100.1	300	853	0.85
No Accommodation	57,177	609	101.3	300	900	0.90
Accommodation	5,578	487	101.4	300	833	0.86
Am. Indian/Alaska Native	504	553	105.5	300	872	0.90
Asian	1,968	647	107.5	300	900	0.91
Black	2,890	547	104.9	300	822	0.88
Hispanic	20,387	553	100.6	300	900	0.88
White	34,310	625	99.9	300	900	0.90
Hawaiian/Pacific Islander	137	595	115.7	300	869	0.91
Two or More Races	2,190	615	107.7	300	900	0.91
Not Free Lunch Eligible	35,727	634	97.3	300	900	0.89
Free Lunch Eligible	22,104	544	100.2	300	900	0.87
Reduced Lunch Eligible	4,660	580	97.1	300	900	0.88
Female	30,933	611	101.9	300	900	0.90
Male	31,822	585	110.4	300	900	0.91
Language Proficiency NA	51,163	610	104.5	300	900	0.90
Language Proficiency NEP	800	428	87.7	300	726	0.76
Language Proficiency LEP	6,262	511	83.5	300	843	0.80
Language Proficiency FEP	4,530	615	83.9	300	900	0.87
Not Migrant or Immigrant	62,137	599	106.7	300	900	0.90
Migrant	159	531	90.6	300	735	0.81
Immigrant	437	518	119.4	300	850	0.91
Migrant and Immigrant	22	516	105.6	300	681	0.84

**Table 7. Grade 8 Performance by Subgroups**

<b>Subgroup</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>Alpha</b>
No Disability	56,029	610	98.9	300	900	0.91
Disability	5,460	475	102.0	300	863	0.88
No IEP	56,081	610	99.1	300	900	0.91
IEP	5,408	476	101.8	300	863	0.88
No Accommodation	56,477	608	99.9	300	900	0.91
Accommodation	5,012	485	110.7	300	886	0.91
Am. Indian/Alaska Native	494	554	108.5	300	804	0.91
Asian	1,962	631	112.5	300	900	0.92
Black	2,934	535	108.6	300	839	0.90
Hispanic	19,863	549	103.3	300	900	0.90
White	33,718	630	93.5	300	900	0.91
Hawaiian/Pacific Islander	132	569	105.3	300	787	0.91
Two or More Races	1,968	617	99.8	300	900	0.91
Not Free Lunch Eligible	35,899	633	93.3	300	900	0.91
Free Lunch Eligible	21,005	541	103.1	300	900	0.90
Reduced Lunch Eligible	4,332	583	97.2	300	900	0.90
Female	29,991	600	103.6	300	900	0.92
Male	31,498	596	108.7	300	900	0.92
Language Proficiency NA	50,500	612	100.9	300	900	0.91
Language Proficiency NEP	830	399	88.3	300	822	0.81
Language Proficiency LEP	5,277	494	87.0	300	802	0.83
Language Proficiency FEP	4,882	601	83.4	300	900	0.88
Not Migrant or Immigrant	60,875	599	105.5	300	900	0.92
Migrant	136	493	97.2	300	771	0.85
Immigrant	463	483	126.8	300	824	0.92
Migrant and Immigrant						

**Table 8. SEMs**

<b>Content Area</b>	<b>Grade</b>	<b>SEM</b>
Social Studies	4	36.0
	7	30.8
Science	5	33.2
	8	30.4

**Table 9. Accuracy and Consistency Estimates**

<b>Content Area</b>	<b>Grade</b>	<b>Accuracy</b>	<b>Consistency</b>	<b>PChance</b>	<b>Kappa</b>
Social Studies	4	0.80	0.72	0.38	0.55
	7	0.79	0.71	0.37	0.55
Science	5	0.80	0.72	0.32	0.59
	8	0.81	0.74	0.32	0.62

**Table 10. Accuracy of Cuts**

<b>Content Area</b>	<b>Grade</b>	<b>Moderate Command Cut</b>	<b>Strong Command Cut</b>	<b>Distinguished Command Cut</b>
Social Studies	4	0.92	0.89	0.98
	7	0.91	0.92	0.96
Science	5	0.93	0.90	0.97
	8	0.93	0.91	0.98

**Table 11. Consistency of Cuts**

<b>Content Area</b>	<b>Grade</b>	<b>Moderate Command Cut</b>	<b>Strong Command Cut</b>	<b>Distinguished Command Cut</b>
Social Studies	4	0.89	0.85	0.98
	7	0.87	0.88	0.95
Science	5	0.90	0.87	0.96
	8	0.90	0.87	0.97

**Table 12. Grade 4 Operational Rater Agreement Statistics**

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
1	3	3,228	71.3	26.9	1.8	0.75	0.02	0.75
2	3	3,237	85.5	14.1	0.4	0.84	0.00	0.84
3	3	3,246	75.8	24.1	0.2	0.86	0.00	0.86
4	3	3,252	77.3	21.6	1.0	0.81	0.01	0.81
5	3	3,229	70.7	26.9	2.3	0.70	0.00	0.70
6	3	3,236	69.8	28.4	1.8	0.76	0.01	0.76
7	3	3,223	78.2	21.1	0.7	0.88	0.01	0.88
8	3	3,229	72.9	24.6	2.4	0.81	0.02	0.81
9	3	3,248	70.2	28.9	0.9	0.72	0.01	0.72
10	3	3,238	75.3	23.3	1.4	0.75	0.02	0.75
11	3	3,231	70.7	27.0	2.3	0.69	0.04	0.69
12	3	3,239	75.4	23.0	1.6	0.81	0.00	0.81

**Table 13. Grade 5 Operational Rater Agreement Statistics**

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
1	2	3,244	83.1	16.6	0.3	0.79	0.02	0.79
2	2	3,238	80.3	19.4	0.3	0.68	0.03	0.68
3	2	3,239	90.5	9.4	0.2	0.84	0.00	0.84
4	2	3,215	81.4	18.3	0.3	0.80	0.01	0.80
5	2	3,238	79.6	16.6	3.8	0.74	0.00	0.74
6	2	3,242	79.8	18.7	1.5	0.76	0.01	0.76
7	2	3,229	78.6	19.9	1.5	0.81	0.01	0.81
8	2	3,236	86.9	12.9	0.1	0.77	0.00	0.77
9	2	3,238	83.1	14.9	2.0	0.79	0.01	0.79
10	2	3,237	88.3	11.6	0.1	0.89	0.00	0.89
11	2	3,229	81.6	17.0	1.4	0.81	0.00	0.81
12	2	3,222	83.4	16.5	0.1	0.77	0.02	0.77
13	2	3,231	90.1	9.9	0.1	0.91	0.00	0.91
14	2	3,226	89.1	9.9	1.0	0.71	0.01	0.71
15	3	3,217	70.5	28.3	1.2	0.76	0.00	0.76
16	3	3,239	74.4	24.5	1.1	0.85	0.02	0.85
17	3	3,231	74.2	24.3	1.5	0.83	0.01	0.83



**Table 14. Grade 7 Operational Rater Agreement Statistics**

<b>Item</b>	<b>Max Points</b>	<b>N</b>	<b>Exact</b>	<b>Adjacent</b>	<b>Non-Adjacent</b>	<b>Kappa</b>	<b>MD</b>	<b>CORR</b>
1	3	3,183	75.1	23.0	1.9	0.85	0.01	0.85
2	3	3,179	69.1	28.6	2.3	0.74	0.02	0.74
3	3	3,158	81.7	17.3	1.0	0.84	0.00	0.84
4	3	3,186	72.2	25.6	2.2	0.75	0.00	0.75
5	3	3,179	72.7	25.5	1.8	0.84	0.00	0.84
6	3	3,171	80.8	18.1	1.1	0.86	0.01	0.86
7	3	3,172	82.8	16.4	0.8	0.81	0.02	0.81
8	3	3,176	71.6	27.4	1.0	0.75	0.00	0.75
9	3	3,177	76.6	23.0	0.4	0.76	0.02	0.76
10	3	3,166	70.8	28.2	1.0	0.74	0.04	0.74
11	3	3,168	70.2	28.6	1.2	0.70	0.02	0.70
12	3	3,189	74.3	24.9	0.8	0.74	0.00	0.74

**Table 15. Grade 8 Operational Rater Agreement Statistics**

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
1	2	3,107	91.8	5.7	2.6	0.89	0.01	0.89
2	2	3,110	80.5	17.1	2.4	0.63	0.10	0.64
3	2	3,095	91.3	8.4	0.2	0.87	0.03	0.87
4	2	3,101	89.7	9.3	1.0	0.91	0.01	0.91
5	2	3,119	87.9	11.9	0.2	0.88	0.01	0.88
6	2	3,091	80.4	19.0	0.6	0.77	0.00	0.77
7	2	3,092	89.2	10.2	0.7	0.89	0.01	0.89
8	2	3,122	81.4	16.2	2.5	0.80	0.01	0.80
9	2	3,119	84.6	15.1	0.3	0.87	0.00	0.87
10	2	3,080	80.8	18.5	0.7	0.81	0.00	0.81
11	2	3,096	93.9	6.0	0.1	0.84	0.01	0.84
12	2	3,069	80.2	19.4	0.5	0.73	0.01	0.73
13	2	3,100	83.2	16.1	0.7	0.74	0.01	0.74
14	2	3,097	79.7	20.0	0.3	0.78	0.03	0.78
15	3	3,094	74.4	22.7	2.9	0.86	0.01	0.86
16	3	3,099	68.6	28.4	3.0	0.71	0.03	0.71
17	3	3,096	85.9	12.0	2.2	0.89	0.01	0.89

**Table 16. Grade 4 Field Test Rater Agreement Statistics**

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
1	3	1,488	64.8	32.1	3.2	0.71	0.03	0.71
2	3	1,485	82.1	17.0	0.9	0.84	0.01	0.84
3	3	1,488	72.3	25.9	1.7	0.69	0.01	0.69
4	3	1,491	67.1	30.3	2.5	0.67	0.02	0.67
5	3	1,489	94.0	5.9	0.1	0.98	0.00	0.98
6	3	1,486	79.3	19.4	1.2	0.76	0.01	0.76
7	3	1,494	70.3	29.2	0.5	0.76	0.00	0.76
8	3	1,491	84.1	14.7	1.2	0.87	0.00	0.87
9	3	1,484	70.4	28.8	0.8	0.67	0.01	0.67
10	3	1,493	76.4	21.4	2.1	0.79	0.01	0.79
11	3	1,487	85.3	14.4	0.3	0.90	0.00	0.90
12	3	1,491	67.9	30.7	1.3	0.65	0.04	0.65
13	3	1,493	75.8	23.2	1.0	0.75	0.02	0.75
14	3	1,495	76.7	22.4	0.9	0.68	0.01	0.68
15	3	1,492	83.4	15.3	1.2	0.83	0.00	0.83
16	3	1,492	80.4	19.4	0.2	0.71	0.02	0.71
17	3	1,489	65.8	34.1	0.1	0.73	0.01	0.73
18	3	1,492	64.7	34.9	0.4	0.73	0.01	0.73
19	3	1,489	72.9	27.0	0.1	0.55	0.02	0.55
20	3	1,489	81.3	17.2	1.5	0.88	0.02	0.88
21	3	1,485	62.8	35.0	2.2	0.67	0.05	0.67
22	3	1,490	66.0	31.5	2.6	0.68	0.02	0.68
23	3	1,485	66.1	31.3	2.6	0.73	0.02	0.73
24	3	1,484	66.3	33.4	0.3	0.72	0.03	0.72
25	3	1,470	71.4	26.9	1.7	0.74	0.02	0.74
26	3	1,467	70.4	27.2	2.4	0.77	0.00	0.77
27	3	1,466	64.7	34.0	1.4	0.65	0.02	0.65
28	3	1,459	72.4	27.4	0.2	0.70	0.02	0.70
29	3	1,459	65.6	31.6	2.8	0.82	0.05	0.82
30	3	1,464	77.1	20.6	2.3	0.70	0.02	0.70
31	3	1,451	64.4	32.0	3.7	0.70	0.00	0.70

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
32	3	1,468	70.8	27.6	1.6	0.74	0.03	0.74
33	3	1,473	69.5	21.3	9.2	0.78	0.00	0.78

**Table 17. Grade 5 Field Test Rater Agreement Statistics**

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
1	2	1,490	98.8	1.2	0.0	0.99	0.00	0.99
2	2	1,456	94.7	5.2	0.1	0.94	0.01	0.94
3	2	1,492	80.1	19.0	0.9	0.79	0.00	0.79
4	2	1,486	85.0	14.7	0.3	0.81	0.01	0.81
5	2	1,490	78.9	20.0	1.1	0.78	0.00	0.78
6	2	1,484	91.7	8.1	0.2	0.91	0.00	0.91
7	2	1,490	98.8	1.1	0.1	0.93	0.00	0.93
8	2	1,488	90.4	9.5	0.1	0.85	0.01	0.85
9	2	1,485	85.9	13.4	0.7	0.88	0.03	0.88
10	2	1,480	77.6	21.1	1.3	0.77	0.00	0.77
11	2	1,482	92.4	6.3	1.3	0.90	0.00	0.90
12	2	1,484	93.7	5.7	0.6	0.93	0.01	0.93
13	2	1,484	91.5	8.4	0.1	0.93	0.01	0.93
14	2	1,488	83.1	16.8	0.1	0.77	0.01	0.77
15	2	1,494	83.9	16.1	0.0	0.80	0.01	0.80
16	2	1,486	85.1	14.7	0.2	0.84	0.02	0.84
17	2	1,488	85.0	14.9	0.1	0.83	0.02	0.83
18	2	1,481	77.9	21.7	0.5	0.71	0.02	0.71
19	2	1,488	71.8	27.6	0.6	0.67	0.00	0.67
20	2	1,493	91.9	8.1	0.0	0.91	0.00	0.91
21	2	1,484	92.8	7.2	0.0	0.92	0.00	0.92
22	2	1,492	87.7	5.8	6.5	0.83	0.01	0.83
23	2	1,490	95.8	4.0	0.2	0.96	0.00	0.96
24	2	1,486	96.1	3.8	0.1	0.96	0.01	0.96
25	2	1,489	97.5	2.5	0.0	0.98	0.00	0.98
26	2	1,473	94.9	5.1	0.0	0.96	0.00	0.96
27	2	1,477	98.6	1.0	0.3	0.97	0.00	0.97
28	2	1,483	95.3	4.7	0.1	0.97	0.00	0.97
29	2	1,483	92.7	6.9	0.3	0.92	0.00	0.92
30	2	1,490	97.6	2.4	0.0	0.98	0.01	0.98
31	2	1,476	84.6	13.5	1.9	0.87	0.01	0.87
32	2	1,469	76.5	22.9	0.5	0.68	0.00	0.68

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
33	2	1,469	97.8	1.0	1.2	0.94	0.01	0.94
34	2	1,466	77.1	22.6	0.3	0.77	0.01	0.77
35	2	1,491	86.6	13.1	0.3	0.84	0.02	0.84
36	2	1,494	79.0	20.6	0.3	0.74	0.01	0.74
37	2	1,460	83.6	16.2	0.2	0.80	0.01	0.80
38	2	1,492	79.6	19.6	0.7	0.79	0.03	0.79
39	2	1,469	96.5	3.3	0.2	0.94	0.01	0.94
40	2	1,494	92.9	7.0	0.1	0.87	0.00	0.87
41	2	1,464	91.3	8.7	0.0	0.84	0.01	0.84
42	2	1,459	87.6	12.4	0.0	0.77	0.01	0.77
43	2	1,465	91.1	8.0	1.0	0.91	0.02	0.91
44	3	1,493	74.7	24.7	0.6	0.67	0.02	0.67
45	3	1,491	70.5	27.4	2.1	0.73	0.01	0.73
46	3	1,498	69.8	28.4	1.8	0.81	0.02	0.81
47	3	1,488	94.6	5.2	0.1	0.97	0.01	0.97
48	3	1,492	89.8	9.9	0.3	0.92	0.01	0.92
49	3	1,496	77.2	20.7	2.1	0.81	0.01	0.81

**Table 18. Grade 7 Field Test Rater Agreement Statistics**

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
1	3	1,490	67.4	29.4	3.2	0.80	0.03	0.80
2	3	1,480	66.2	31.5	2.3	0.77	0.00	0.77
3	3	1,486	73.3	24.9	1.8	0.82	0.02	0.82
4	3	1,487	77.4	15.7	6.9	0.81	0.04	0.81
5	3	1,488	53.8	40.8	5.4	0.63	0.01	0.63
6	3	1,479	67.3	30.4	2.3	0.75	0.02	0.75
7	3	1,488	65.9	30.4	3.6	0.68	0.03	0.68
8	3	1,491	63.9	32.7	3.4	0.73	0.00	0.73
9	3	1,491	77.1	21.1	1.8	0.90	0.01	0.90
10	3	1,486	63.1	33.2	3.7	0.69	0.00	0.69
11	3	1,483	72.6	19.9	7.6	0.78	0.01	0.78
12	3	1,487	59.2	34.7	6.1	0.61	0.01	0.61
13	3	1,490	58.9	38.5	2.6	0.71	0.02	0.71
14	3	1,485	67.0	32.2	0.8	0.69	0.03	0.69
15	3	1,488	60.3	36.2	3.5	0.72	0.00	0.72
16	3	1,492	77.7	19.2	3.1	0.81	0.01	0.81
17	3	1,490	61.5	35.5	3.0	0.71	0.01	0.71
18	3	1,497	61.9	35.8	2.3	0.69	0.03	0.69
19	3	1,491	64.7	33.1	2.2	0.77	0.02	0.77
20	3	1,487	73.2	26.0	0.8	0.86	0.00	0.86
21	3	1,482	76.8	1.6	21.7	0.58	0.01	0.58
22	3	1,487	63.8	33.6	2.6	0.67	0.00	0.67
23	3	1,486	67.0	29.7	3.3	0.72	0.02	0.72
24	3	1,492	64.0	31.6	4.4	0.69	0.01	0.69
25	3	1,483	62.5	35.7	1.8	0.75	0.00	0.75
26	3	1,477	66.4	31.6	2.0	0.78	0.03	0.79
27	3	1,469	70.1	27.2	2.7	0.68	0.00	0.68
28	3	1,489	63.6	25.8	10.6	0.61	0.03	0.61
29	3	1,461	67.5	29.4	3.1	0.76	0.03	0.76
30	3	1,452	62.5	34.8	2.6	0.66	0.00	0.66
31	3	1,457	68.2	29.9	1.9	0.72	0.00	0.72
32	3	1,460	77.2	20.1	2.7	0.82	0.02	0.82

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
33	3	1,475	73.0	20.5	6.4	0.72	0.01	0.72
34	3	1,466	69.7	29.7	0.5	0.76	0.03	0.76
35	3	1,483	54.3	39.9	5.7	0.63	0.01	0.63
36	3	1,482	68.1	29.8	2.1	0.75	0.03	0.76
37	3	1,487	62.9	32.1	5.0	0.66	0.01	0.66
38	3	1,484	68.5	25.9	5.5	0.80	0.00	0.80
39	3	1,483	75.3	22.6	2.2	0.83	0.01	0.83
40	3	1,484	59.8	34.3	5.9	0.70	0.01	0.70



**Table 19. Grade 8 Field Test Rater Agreement Statistics**

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
1	2	1,468	74.0	24.9	1.1	0.73	0.03	0.73
2	2	1,474	77.3	22.6	0.1	0.80	0.01	0.80
3	2	1,473	71.4	27.4	1.2	0.76	0.04	0.76
4	2	1,467	77.8	21.7	0.5	0.75	0.01	0.75
5	2	1,473	89.1	9.7	1.2	0.84	0.03	0.84
6	2	1,473	90.5	7.9	1.6	0.85	0.01	0.85
7	2	1,476	81.2	18.3	0.5	0.70	0.01	0.70
8	2	1,476	85.0	14.3	0.7	0.85	0.04	0.85
9	2	1,476	88.6	11.1	0.3	0.90	0.01	0.90
10	2	1,478	70.1	28.4	1.5	0.59	0.01	0.59
11	2	1,473	95.4	4.3	0.3	0.83	0.01	0.83
12	2	1,473	96.3	3.6	0.1	0.89	0.00	0.89
13	2	1,475	92.4	7.0	0.6	0.83	0.00	0.83
14	2	1,470	93.7	6.2	0.1	0.95	0.00	0.95
15	2	1,469	92.0	8.0	0.0	0.88	0.02	0.88
16	2	1,472	73.0	27.0	0.0	0.81	0.01	0.81
17	2	1,474	82.8	16.0	1.2	0.85	0.01	0.85
18	2	1,467	80.4	18.4	1.2	0.85	0.01	0.85
19	2	1,473	80.8	18.8	0.4	0.82	0.02	0.82
20	2	1,470	89.6	9.5	0.9	0.92	0.01	0.92
21	2	1,476	87.7	11.9	0.4	0.92	0.00	0.92
22	2	1,470	80.9	18.6	0.5	0.84	0.01	0.84
23	2	1,465	80.8	15.7	3.5	0.77	0.01	0.77
24	2	1,477	82.1	13.5	4.5	0.79	0.03	0.79
25	2	1,477	76.9	23.1	0.0	0.72	0.01	0.72
26	2	1,469	80.9	18.9	0.1	0.81	0.02	0.81
27	2	1,470	84.1	15.9	0.0	0.87	0.01	0.87
28	2	1,468	71.1	28.9	0.0	0.73	0.10	0.74
29	2	1,477	73.5	26.5	0.0	0.80	0.03	0.80
30	2	1,472	73.6	26.1	0.3	0.73	0.01	0.73
31	2	1,474	69.7	30.3	0.0	0.62	0.01	0.62
32	2	1,469	69.8	29.3	0.9	0.65	0.01	0.65

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
33	2	1,478	74.8	24.7	0.5	0.69	0.05	0.69
34	2	1,474	92.1	7.2	0.7	0.93	0.01	0.93
35	2	1,471	96.3	3.2	0.5	0.97	0.00	0.97
36	2	1,479	96.6	3.0	0.4	0.97	0.01	0.97
37	2	1,467	92.0	7.1	1.0	0.92	0.02	0.92
38	2	1,472	79.6	20.0	0.4	0.83	0.01	0.83
39	2	1,485	76.4	21.6	2.0	0.67	0.01	0.67
40	2	1,487	68.7	30.9	0.4	0.66	0.01	0.66
41	2	1,482	85.7	13.7	0.6	0.88	0.00	0.88
42	2	1,490	91.9	7.7	0.3	0.90	0.01	0.90
43	2	1,482	74.1	24.5	1.4	0.55	0.03	0.55
44	2	1,484	82.2	17.3	0.5	0.78	0.03	0.78
45	2	1,479	76.9	22.0	1.0	0.76	0.02	0.76
46	2	1,490	65.5	31.3	3.2	0.64	0.00	0.64
47	2	1,469	85.4	14.2	0.3	0.88	0.01	0.88
48	2	1,468	92.9	6.0	1.1	0.91	0.01	0.91
49	2	1,486	74.8	25.2	0.1	0.78	0.01	0.78
50	2	1,458	80.8	19.2	0.0	0.81	0.02	0.81
51	2	1,456	73.2	26.1	0.7	0.71	0.01	0.71
52	2	1,453	75.8	23.9	0.3	0.69	0.02	0.69
53	2	1,430	73.4	25.7	0.8	0.65	0.03	0.65
54	2	1,450	87.0	12.8	0.2	0.90	0.02	0.90
55	2	1,443	82.4	17.3	0.3	0.85	0.01	0.85
56	2	1,453	84.8	15.2	0.0	0.88	0.02	0.88
57	2	1,441	93.9	6.0	0.1	0.90	0.01	0.90
58	2	1,453	82.3	16.7	1.0	0.82	0.01	0.82
59	3	1,492	66.9	30.5	2.6	0.80	0.01	0.80
60	3	1,481	84.9	14.4	0.7	0.94	0.00	0.94
61	3	1,487	67.2	30.3	2.6	0.74	0.01	0.74
62	3	1,483	81.9	14.8	3.3	0.90	0.01	0.90
63	3	1,488	69.1	27.2	3.8	0.81	0.00	0.81

**Table 20. N-Count by Form**

<b>Form</b>	<b>Grade</b>			
	<b>4</b>	<b>5</b>	<b>7</b>	<b>8</b>
Online	64,007	64,269	62,674	61,404
Paper	105	98	71	64
Large Print	14	10	8	14
Braille	4	6	2	7
<b>Total</b>	64,130	64,383	62,755	61,489

**Table 21. Demographic Distributions**

Subgroup	Grade			
	4	5	7	8
No Disability	57,738	57,686	56,804	56,029
Disability	6,392	6,697	5,951	5,460
No IEP	57,749	57,712	56,842	56,081
IEP	6,381	6,671	5,913	5,408
No Accommodation	53,086	53,854	57,177	56,477
Accommodation	11,044	10,529	5,578	5,012
Am. Indian/Alaska Native	476	456	504	494
Asian	2,012	2,080	1,968	1,962
Black	2,863	2,904	2,890	2,934
Hispanic	21,316	21,234	20,387	19,863
White	34,771	34,857	34,310	33,718
Hawaiian/Pacific Islander	146	159	137	132
Two or More Races	2,197	2,296	2,190	1,968
Not Free Lunch Eligible	35,451	35,825	35,727	35,899
Free Lunch Eligible	23,987	23,758	22,104	21,005
Reduced Lunch Eligible	4,477	4,544	4,660	4,332
Female	31,424	31,695	30,933	29,991
Male	32,706	32,688	31,822	31,498
Language Proficiency NA	51,575	51,924	51,163	50,500
Language Proficiency NEP	992	907	800	830
Language Proficiency LEP	8,519	7,667	6,262	5,277
Language Proficiency FEP	3,044	3,885	4,530	4,882
Not Migrant or Immigrant	63,548	63,803	62,137	60,875
Migrant	128	158	159	136
Immigrant	448	407	437	463
Migrant and Immigrant	6	15	22	15

**Table 22. Grade 4 Operational Item Parameter Estimates**

Item	Item Type	Model	A	B	C	D1	D2	D3	D4	Misfit Flag
1	CR	GPC	1.083	1.303	.	0.000	1.163	-0.043	-1.120	No
2	CR	GPC	1.029	2.027	.	0.000	1.083	0.221	-1.303	No
3	CR	GPC	0.944	0.557	.	0.000	1.267	-0.225	-1.042	No
4	CR	GPC	1.167	0.520	.	0.000	1.901	-1.441	-0.459	No
5	CR	GPC	0.755	-0.525	.	0.000	1.093	1.499	-2.592	No
6	CR	GPC	1.047	0.372	.	0.000	1.667	0.165	-1.833	No
7	CR	GPC	1.316	0.437	.	0.000	0.939	0.333	-1.272	No
8	CR	GPC	0.775	1.252	.	0.000	0.306	0.879	-1.186	No
9	CR	GPC	1.232	1.006	.	0.000	1.788	-0.295	-1.493	No
10	CR	GPC	0.827	1.798	.	0.000	1.188	-0.201	-0.987	No
11	CR	GPC	0.712	2.032	.	0.000	1.835	0.338	-2.174	No
12	CR	GPC	1.153	1.263	.	0.000	0.748	0.344	-1.092	Yes
13	SR	3PL	1.466	0.622	0.148	.	.	.	.	No
14	SR	3PL	0.676	-1.384	0.043	.	.	.	.	No
15	SR	3PL	1.259	-1.771	0.199	.	.	.	.	No
16	SR	3PL	1.514	-1.701	0.464	.	.	.	.	No
17	SR	3PL	1.424	0.517	0.258	.	.	.	.	No
18	SR	3PL	0.916	0.445	0.097	.	.	.	.	No
19	SR	3PL	1.294	0.605	0.284	.	.	.	.	No
20	SR	3PL	1.087	2.083	0.148	.	.	.	.	No
21	SR	3PL	1.619	0.916	0.120	.	.	.	.	No
22	SR	3PL	0.715	-0.414	0.030	.	.	.	.	No
23	SR	3PL	1.911	0.438	0.163	.	.	.	.	No
24	SR	3PL	1.249	-0.968	0.281	.	.	.	.	No
25	SR	3PL	1.799	1.145	0.213	.	.	.	.	No
26	SR	3PL	1.483	0.273	0.320	.	.	.	.	No
27	SR	3PL	2.074	1.745	0.241	.	.	.	.	No
28	SR	3PL	1.037	1.617	0.562	.	.	.	.	No
29	SR	3PL	2.686	1.194	0.240	.	.	.	.	No
30	SR	3PL	1.589	1.185	0.243	.	.	.	.	No
31	SR	3PL	0.948	4.456	0.273	.	.	.	.	No
32	SR	3PL	0.318	-0.358	0.083	.	.	.	.	No
33	SR	3PL	1.913	1.721	0.169	.	.	.	.	No
34	SR	3PL	1.421	-0.152	0.070	.	.	.	.	No
35	SR	3PL	0.438	4.688	0.236	.	.	.	.	No
36	SR	3PL	0.986	0.496	0.271	.	.	.	.	No
37	XI	3PL	1.246	1.126	0.217	.	.	.	.	No
38	XI	2PL	1.476	0.516	.	.	.	.	.	No
39	XI	3PL	1.046	0.184	0.070	.	.	.	.	No
40	XI	3PL	0.681	0.108	0.075	.	.	.	.	No
41	XI	3PL	1.030	0.654	0.109	.	.	.	.	No

Item	Item Type	Model	A	B	C	D1	D2	D3	D4	Misfit Flag
42	XI	3PL	0.893	-0.585	0.127	.	.	.	.	No
43	XI	3PL	1.483	0.090	0.341	.	.	.	.	No
44	XI	2PL	1.464	0.834	.	.	.	.	.	No
45	XI	2PL	1.264	0.160	.	.	.	.	.	No
46	XI	3PL	1.166	-0.772	0.016	.	.	.	.	No
47	XI	2PL	1.048	1.016	.	.	.	.	.	No
48	XI	2PL	0.382	5.496	.	.	.	.	.	No

**Table 23. Grade 5 Operational Item Parameter Estimates**

Item	Item Type	Model	A	B	C	D1	D2	D3	D4	Misfit Flag
1	CR	GPC	1.140	0.329	.	0.000	1.268	-1.268	.	No
2	CR	GPC	1.303	1.381	.	0.000	1.342	-1.342	.	No
3	CR	GPC	1.056	1.808	.	0.000	1.343	-1.343	.	No
4	CR	GPC	0.997	-0.189	.	0.000	1.088	-1.088	.	No
5	CR	GPC	0.268	-1.744	.	0.000	0.151	-0.151	.	No
6	CR	GPC	0.740	-0.122	.	0.000	1.240	-1.240	.	Yes
7	CR	GPC	0.830	0.066	.	0.000	0.258	-0.258	.	No
8	CR	GPC	1.283	-0.860	.	0.000	1.683	-1.683	.	No
9	CR	GPC	1.076	0.034	.	0.000	0.812	-0.812	.	No
10	CR	GPC	1.228	-0.687	.	0.000	0.524	-0.524	.	No
11	CR	GPC	0.760	0.436	.	0.000	0.710	-0.710	.	No
12	CR	GPC	1.271	1.208	.	0.000	1.082	-1.082	.	No
13	CR	GPC	1.011	-0.277	.	0.000	0.602	-0.602	.	No
14	CR	GPC	1.380	1.948	.	0.000	0.434	-0.434	.	No
15	CR	GPC	1.205	1.066	.	0.000	1.517	0.091	-1.607	No
16	CR	GPC	0.759	0.718	.	0.000	0.976	0.605	-1.581	No
17	CR	GPC	1.041	0.727	.	0.000	1.124	-0.804	-0.320	No
18	SR	3PL	1.576	1.538	0.228	.	.	.	.	No
19	SR	3PL	1.394	-0.235	0.202	.	.	.	.	No
20	SR	3PL	1.686	-0.907	0.188	.	.	.	.	No
21	SR	3PL	1.459	-0.842	0.293	.	.	.	.	No
22	SR	3PL	0.545	-0.474	0.018	.	.	.	.	No
23	SR	3PL	1.536	-0.746	0.301	.	.	.	.	No
24	SR	3PL	1.835	-1.159	0.327	.	.	.	.	No
25	SR	3PL	0.618	-1.687	0.057	.	.	.	.	No
26	SR	3PL	1.348	-0.806	0.252	.	.	.	.	No
27	SR	3PL	0.950	-0.007	0.115	.	.	.	.	No
28	SR	3PL	1.194	0.449	0.145	.	.	.	.	No
29	SR	3PL	1.505	-0.686	0.247	.	.	.	.	No
30	SR	3PL	1.232	0.384	0.296	.	.	.	.	No
31	SR	3PL	1.533	-0.319	0.211	.	.	.	.	No
32	SR	3PL	1.654	0.419	0.217	.	.	.	.	No
33	SR	3PL	0.859	-2.500	0.071	.	.	.	.	No
34	SR	3PL	1.104	-1.656	0.100	.	.	.	.	No
35	SR	3PL	0.340	1.554	0.040	.	.	.	.	No
36	SR	3PL	2.039	-1.875	0.067	.	.	.	.	No
37	SR	3PL	1.120	-0.057	0.301	.	.	.	.	No
38	SR	3PL	1.651	-1.248	0.231	.	.	.	.	No
39	SR	3PL	0.849	0.773	0.216	.	.	.	.	No
40	SR	3PL	0.909	1.675	0.259	.	.	.	.	No
41	SR	3PL	1.479	0.453	0.498	.	.	.	.	No

Item	Item Type	Model	A	B	C	D1	D2	D3	D4	Misfit Flag
42	SR	3PL	2.257	0.621	0.253	.	.	.	.	No
43	SR	3PL	1.265	-1.907	0.050	.	.	.	.	No
44	SR	3PL	1.848	-0.564	0.203	.	.	.	.	No
45	SR	3PL	2.116	1.294	0.320	.	.	.	.	No
46	SR	3PL	1.922	-0.668	0.317	.	.	.	.	No
47	SR	3PL	0.739	-0.618	0.169	.	.	.	.	No
48	SR	3PL	0.663	-2.413	0.092	.	.	.	.	No
49	SR	3PL	1.268	1.202	0.147	.	.	.	.	No
50	XI	2PL	1.173	-0.153	.	.	.	.	.	No
51	XI	2PL	0.762	-0.655	.	.	.	.	.	No
52	XI	2PL	1.128	-2.661	.	.	.	.	.	No
53	XI	2PL	1.171	0.253	.	.	.	.	.	No
54	XI	2PL	0.943	0.343	.	.	.	.	.	No
55	XI	2PL	1.214	1.242	.	.	.	.	.	No
56	XI	2PL	0.881	-1.323	.	.	.	.	.	No
57	XI	2PL	1.055	-0.888	.	.	.	.	.	No
58	XI	2PL	1.469	-1.009	.	.	.	.	.	No
59	XI	2PL	0.848	-2.884	.	.	.	.	.	No
60	XI	2PL	0.726	-1.847	.	.	.	.	.	No



**Table 24. Grade 7 Operational Item Parameter Estimates**

Item	Item Type	Model	A	B	C	D1	D2	D3	D4	Misfit Flag
1	CR	GPC	0.830	-0.480	.	0.000	0.585	0.456	-1.042	Yes
2	CR	GPC	0.811	0.752	.	0.000	1.875	-0.414	-1.461	No
3	CR	GPC	1.327	0.375	.	0.000	1.751	0.044	-1.796	No
4	CR	GPC	1.363	0.978	.	0.000	1.191	-0.469	-0.722	No
5	CR	GPC	0.908	0.340	.	0.000	0.731	0.675	-1.406	No
6	CR	GPC	1.197	0.342	.	0.000	1.702	-1.076	-0.626	No
7	CR	GPC	1.144	1.506	.	0.000	1.845	-0.296	-1.548	No
8	CR	GPC	1.479	0.880	.	0.000	1.580	-0.406	-1.174	No
9	CR	GPC	1.198	1.515	.	0.000	1.685	-0.154	-1.531	No
10	CR	GPC	1.176	0.761	.	0.000	1.822	-0.454	-1.368	No
11	CR	GPC	1.495	1.366	.	0.000	1.366	-0.185	-1.182	No
12	CR	GPC	1.366	1.143	.	0.000	1.749	-0.460	-1.289	No
13	SR	3PL	1.264	0.803	0.316	.	.	.	.	No
14	SR	3PL	1.334	1.016	0.237	.	.	.	.	No
15	SR	3PL	1.952	-0.100	0.183	.	.	.	.	No
16	SR	3PL	1.072	0.917	0.182	.	.	.	.	No
17	SR	3PL	1.825	-0.554	0.351	.	.	.	.	No
18	SR	3PL	1.730	-0.021	0.191	.	.	.	.	No
19	SR	3PL	0.787	-0.842	0.128	.	.	.	.	No
20	SR	3PL	1.100	0.106	0.137	.	.	.	.	No
21	SR	3PL	1.542	2.755	0.209	.	.	.	.	No
22	SR	3PL	1.165	0.474	0.115	.	.	.	.	No
23	SR	3PL	1.842	-0.887	0.234	.	.	.	.	No
24	SR	3PL	1.078	0.176	0.185	.	.	.	.	No
25	SR	3PL	1.156	-0.673	0.118	.	.	.	.	No
26	SR	3PL	1.026	0.521	0.219	.	.	.	.	No
27	SR	3PL	1.511	0.485	0.420	.	.	.	.	No
28	SR	3PL	1.557	-0.327	0.123	.	.	.	.	No
29	SR	3PL	1.243	-0.137	0.217	.	.	.	.	No
30	SR	3PL	0.468	-0.379	0.027	.	.	.	.	No
31	SR	3PL	1.020	1.113	0.092	.	.	.	.	No
32	SR	3PL	1.674	1.346	0.255	.	.	.	.	No
33	SR	3PL	2.140	1.557	0.177	.	.	.	.	No
34	SR	3PL	0.635	-0.518	0.100	.	.	.	.	No
35	SR	3PL	1.846	1.008	0.287	.	.	.	.	No
36	SR	3PL	0.792	-1.145	0.017	.	.	.	.	No
37	SR	3PL	1.222	0.992	0.154	.	.	.	.	No
38	XI	3PL	1.023	-0.025	0.191	.	.	.	.	No
39	XI	3PL	0.993	0.283	0.164	.	.	.	.	No
40	XI	3PL	1.100	0.689	0.144	.	.	.	.	No
41	XI	3PL	1.171	-2.716	0.405	.	.	.	.	No

Item	Item Type	Model	A	B	C	D1	D2	D3	D4	Misfit Flag
42	XI	2PL	0.848	0.120	.	.	.	.	.	No
43	XI	3PL	0.941	1.119	0.271	.	.	.	.	No
44	XI	3PL	1.052	1.466	0.122	.	.	.	.	No
45	XI	3PL	1.421	0.056	0.048	.	.	.	.	No
46	XI	2PL	1.401	1.197	.	.	.	.	.	No
47	XI	3PL	0.797	0.886	0.030	.	.	.	.	No

**Table 25. Grade 8 Operational Item Parameter Estimates**

Item	Item Type	Model	A	B	C	D1	D2	D3	D4	Misfit Flag
1	CR	GPC	0.851	0.954	.	0.000	-1.728	1.728	.	No
2	CR	GPC	1.126	1.365	.	0.000	0.406	-0.406	.	No
3	CR	GPC	0.856	1.738	.	0.000	1.274	-1.274	.	Yes
4	CR	GPC	1.429	0.306	.	0.000	-0.177	0.177	.	No
5	CR	GPC	1.253	0.470	.	0.000	0.712	-0.712	.	No
6	CR	GPC	1.071	-0.259	.	0.000	1.133	-1.133	.	No
7	CR	GPC	1.071	0.502	.	0.000	0.590	-0.590	.	No
8	CR	GPC	0.739	0.942	.	0.000	-0.003	0.003	.	No
9	CR	GPC	0.956	-0.206	.	0.000	0.553	-0.553	.	No
10	CR	GPC	1.356	0.699	.	0.000	0.537	-0.537	.	No
11	CR	GPC	1.097	2.276	.	0.000	0.318	-0.318	.	No
12	CR	GPC	1.174	0.921	.	0.000	1.221	-1.221	.	No
13	CR	GPC	1.085	-0.363	.	0.000	1.560	-1.560	.	Yes
14	CR	GPC	0.809	-0.718	.	0.000	1.049	-1.049	.	No
15	CR	GPC	1.067	0.020	.	0.000	0.588	0.001	-0.589	No
16	CR	GPC	1.164	1.004	.	0.000	1.392	-0.068	-1.324	No
17	CR	GPC	1.085	1.247	.	0.000	-0.461	0.843	-0.382	No
18	SR	3PL	1.189	0.765	0.311	.	.	.	.	No
19	SR	3PL	1.609	-0.506	0.189	.	.	.	.	No
20	SR	3PL	1.194	0.036	0.073	.	.	.	.	No
21	SR	3PL	1.264	0.162	0.235	.	.	.	.	No
22	SR	3PL	1.950	2.419	0.196	.	.	.	.	No
23	SR	3PL	0.586	-0.856	0.037	.	.	.	.	No
24	SR	3PL	1.342	0.402	0.042	.	.	.	.	No
25	SR	3PL	2.210	1.514	0.298	.	.	.	.	No
26	SR	3PL	0.986	0.401	0.268	.	.	.	.	No
27	SR	3PL	1.282	0.889	0.409	.	.	.	.	No
28	SR	3PL	1.478	0.878	0.376	.	.	.	.	No
29	SR	3PL	1.300	-0.787	0.300	.	.	.	.	No
30	SR	3PL	1.203	-1.438	0.016	.	.	.	.	No
31	SR	3PL	1.448	0.270	0.152	.	.	.	.	No
32	SR	3PL	0.543	1.396	0.046	.	.	.	.	No
33	SR	3PL	1.934	0.927	0.313	.	.	.	.	No
34	SR	3PL	1.381	-0.271	0.388	.	.	.	.	No
35	SR	3PL	1.254	0.045	0.221	.	.	.	.	No
36	SR	3PL	1.115	-0.248	0.522	.	.	.	.	No
37	SR	3PL	2.215	1.523	0.398	.	.	.	.	No
38	SR	3PL	0.895	0.412	0.033	.	.	.	.	No
39	SR	3PL	1.101	0.128	0.186	.	.	.	.	No
40	SR	3PL	1.654	-0.039	0.122	.	.	.	.	No
41	SR	3PL	0.672	1.518	0.070	.	.	.	.	No

Item	Item Type	Model	A	B	C	D1	D2	D3	D4	Misfit Flag
42	SR	3PL	1.279	1.175	0.139	.	.	.	.	No
43	SR	3PL	1.146	-1.803	0.081	.	.	.	.	No
44	SR	3PL	0.717	-1.771	0.025	.	.	.	.	No
45	SR	3PL	1.436	-0.754	0.197	.	.	.	.	No
46	SR	3PL	1.726	0.292	0.276	.	.	.	.	No
47	SR	3PL	2.020	-0.560	0.284	.	.	.	.	No
48	SR	3PL	1.259	0.581	0.404	.	.	.	.	No
49	XI	2PL	1.264	1.467	.	.	.	.	.	No
50	XI	2PL	0.802	-0.891	.	.	.	.	.	No
51	XI	3PL	0.624	1.551	0.052	.	.	.	.	No
52	XI	2PL	1.538	0.667	.	.	.	.	.	No
53	XI	3PL	0.924	-1.941	0.063	.	.	.	.	No
54	XI	3PL	1.822	0.272	0.298	.	.	.	.	No
55	XI	2PL	1.230	-0.065	.	.	.	.	.	No
56	XI	2PL	1.126	1.144	.	.	.	.	.	No
57	XI	2PL	1.130	1.140	.	.	.	.	.	No
58	XI	2PL	1.248	-2.258	.	.	.	.	.	No
59	XI	3PL	1.075	-0.616	0.154	.	.	.	.	No

**Table 26. Grade 4 Cumulative Frequency Distribution of Scale Scores**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
300	1,130	1.76	1,130	1.76	345	16	0.02	1,767	2.76	390	39	0.06	3,023	4.71
301	12	0.02	1,142	1.78	346	21	0.03	1,788	2.79	391	29	0.05	3,052	4.76
302	9	0.01	1,151	1.79	347	16	0.02	1,804	2.81	392	42	0.07	3,094	4.82
303	11	0.02	1,162	1.81	348	14	0.02	1,818	2.83	393	41	0.06	3,135	4.89
304	12	0.02	1,174	1.83	349	25	0.04	1,843	2.87	394	38	0.06	3,173	4.95
305	8	0.01	1,182	1.84	350	21	0.03	1,864	2.91	395	35	0.05	3,208	5.00
306	10	0.02	1,192	1.86	351	14	0.02	1,878	2.93	396	41	0.06	3,249	5.07
307	17	0.03	1,209	1.89	352	18	0.03	1,896	2.96	397	31	0.05	3,280	5.11
308	6	0.01	1,215	1.89	353	27	0.04	1,923	3.00	398	49	0.08	3,329	5.19
309	12	0.02	1,227	1.91	354	20	0.03	1,943	3.03	399	39	0.06	3,368	5.25
310	14	0.02	1,241	1.94	355	21	0.03	1,964	3.06	400	40	0.06	3,408	5.31
311	8	0.01	1,249	1.95	356	21	0.03	1,985	3.10	401	39	0.06	3,447	5.38
312	6	0.01	1,255	1.96	357	22	0.03	2,007	3.13	402	50	0.08	3,497	5.45
313	14	0.02	1,269	1.98	358	31	0.05	2,038	3.18	403	45	0.07	3,542	5.52
314	7	0.01	1,276	1.99	359	25	0.04	2,063	3.22	404	30	0.05	3,572	5.57
315	14	0.02	1,290	2.01	360	25	0.04	2,088	3.26	405	24	0.04	3,596	5.61
316	10	0.02	1,300	2.03	361	26	0.04	2,114	3.30	406	48	0.07	3,644	5.68
317	11	0.02	1,311	2.04	362	22	0.03	2,136	3.33	407	37	0.06	3,681	5.74
318	12	0.02	1,323	2.06	363	23	0.04	2,159	3.37	408	39	0.06	3,720	5.80
319	11	0.02	1,334	2.08	364	33	0.05	2,192	3.42	409	49	0.08	3,769	5.88
320	12	0.02	1,346	2.10	365	34	0.05	2,226	3.47	410	34	0.05	3,803	5.93
321	12	0.02	1,358	2.12	366	20	0.03	2,246	3.50	411	50	0.08	3,853	6.01
322	14	0.02	1,372	2.14	367	26	0.04	2,272	3.54	412	48	0.07	3,901	6.08
323	17	0.03	1,389	2.17	368	28	0.04	2,300	3.59	413	49	0.08	3,950	6.16
324	15	0.02	1,404	2.19	369	44	0.07	2,344	3.66	414	41	0.06	3,991	6.22
325	16	0.02	1,420	2.21	370	26	0.04	2,370	3.70	415	59	0.09	4,050	6.32
326	22	0.03	1,442	2.25	371	28	0.04	2,398	3.74	416	42	0.07	4,092	6.38
327	20	0.03	1,462	2.28	372	30	0.05	2,428	3.79	417	45	0.07	4,137	6.45
328	17	0.03	1,479	2.31	373	31	0.05	2,459	3.83	418	53	0.08	4,190	6.53
329	18	0.03	1,497	2.33	374	24	0.04	2,483	3.87	419	41	0.06	4,231	6.60
330	9	0.01	1,506	2.35	375	24	0.04	2,507	3.91	420	60	0.09	4,291	6.69
331	22	0.03	1,528	2.38	376	31	0.05	2,538	3.96	421	44	0.07	4,335	6.76
332	23	0.04	1,551	2.42	377	31	0.05	2,569	4.01	422	55	0.09	4,390	6.85
333	24	0.04	1,575	2.46	378	33	0.05	2,602	4.06	423	55	0.09	4,445	6.93
334	12	0.02	1,587	2.47	379	38	0.06	2,640	4.12	424	47	0.07	4,492	7.00
335	16	0.02	1,603	2.50	380	35	0.05	2,675	4.17	425	60	0.09	4,552	7.10
336	18	0.03	1,621	2.53	381	39	0.06	2,714	4.23	426	55	0.09	4,607	7.18
337	12	0.02	1,633	2.55	382	33	0.05	2,747	4.28	427	54	0.08	4,661	7.27
338	19	0.03	1,652	2.58	383	38	0.06	2,785	4.34	428	58	0.09	4,719	7.36
339	17	0.03	1,669	2.60	384	24	0.04	2,809	4.38	429	63	0.10	4,782	7.46
340	16	0.02	1,685	2.63	385	27	0.04	2,836	4.42	430	66	0.10	4,848	7.56
341	22	0.03	1,707	2.66	386	35	0.05	2,871	4.48	431	67	0.10	4,915	7.66
342	15	0.02	1,722	2.69	387	32	0.05	2,903	4.53	432	60	0.09	4,975	7.76
343	13	0.02	1,735	2.71	388	44	0.07	2,947	4.60	433	54	0.08	5,029	7.84
344	16	0.02	1,751	2.73	389	37	0.06	2,984	4.65	434	74	0.12	5,103	7.96

**Table 26. Grade 4 Cumulative Frequency Distribution of Scale Scores (continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
435	57	0.09	5,160	8.05	480	107	0.17	8,880	13.85	525	178	0.28	14,962	23.33
436	66	0.10	5,226	8.15	481	109	0.17	8,989	14.02	526	151	0.24	15,113	23.57
437	60	0.09	5,286	8.24	482	109	0.17	9,098	14.19	527	170	0.27	15,283	23.83
438	61	0.10	5,347	8.34	483	111	0.17	9,209	14.36	528	166	0.26	15,449	24.09
439	64	0.10	5,411	8.44	484	125	0.19	9,334	14.55	529	164	0.26	15,613	24.35
440	73	0.11	5,484	8.55	485	96	0.15	9,430	14.70	530	182	0.28	15,795	24.63
441	64	0.10	5,548	8.65	486	116	0.18	9,546	14.89	531	164	0.26	15,959	24.89
442	56	0.09	5,604	8.74	487	108	0.17	9,654	15.05	532	177	0.28	16,136	25.16
443	69	0.11	5,673	8.85	488	105	0.16	9,759	15.22	533	168	0.26	16,304	25.42
444	64	0.10	5,737	8.95	489	124	0.19	9,883	15.41	534	197	0.31	16,501	25.73
445	60	0.09	5,797	9.04	490	103	0.16	9,986	15.57	535	183	0.29	16,684	26.02
446	60	0.09	5,857	9.13	491	106	0.17	10,092	15.74	536	154	0.24	16,838	26.26
447	66	0.10	5,923	9.24	492	116	0.18	10,208	15.92	537	183	0.29	17,021	26.54
448	72	0.11	5,995	9.35	493	139	0.22	10,347	16.13	538	170	0.27	17,191	26.81
449	74	0.12	6,069	9.46	494	108	0.17	10,455	16.30	539	183	0.29	17,374	27.09
450	73	0.11	6,142	9.58	495	110	0.17	10,565	16.47	540	191	0.30	17,565	27.39
451	77	0.12	6,219	9.70	496	133	0.21	10,698	16.68	541	190	0.30	17,755	27.69
452	70	0.11	6,289	9.81	497	133	0.21	10,831	16.89	542	163	0.25	17,918	27.94
453	72	0.11	6,361	9.92	498	109	0.17	10,940	17.06	543	197	0.31	18,115	28.25
454	58	0.09	6,419	10.01	499	117	0.18	11,057	17.24	544	192	0.30	18,307	28.55
455	71	0.11	6,490	10.12	500	145	0.23	11,202	17.47	545	214	0.33	18,521	28.88
456	88	0.14	6,578	10.26	501	139	0.22	11,341	17.68	546	153	0.24	18,674	29.12
457	95	0.15	6,673	10.41	502	156	0.24	11,497	17.93	547	181	0.28	18,855	29.40
458	86	0.13	6,759	10.54	503	133	0.21	11,630	18.14	548	186	0.29	19,041	29.69
459	93	0.15	6,852	10.68	504	139	0.22	11,769	18.35	549	204	0.32	19,245	30.01
460	87	0.14	6,939	10.82	505	137	0.21	11,906	18.57	550	188	0.29	19,433	30.30
461	92	0.14	7,031	10.96	506	141	0.22	12,047	18.79	551	207	0.32	19,640	30.63
462	99	0.15	7,130	11.12	507	129	0.20	12,176	18.99	552	211	0.33	19,851	30.95
463	81	0.13	7,211	11.24	508	139	0.22	12,315	19.20	553	215	0.34	20,066	31.29
464	83	0.13	7,294	11.37	509	156	0.24	12,471	19.45	554	177	0.28	20,243	31.57
465	98	0.15	7,392	11.53	510	173	0.27	12,644	19.72	555	188	0.29	20,431	31.86
466	93	0.15	7,485	11.67	511	115	0.18	12,759	19.90	556	219	0.34	20,650	32.20
467	102	0.16	7,587	11.83	512	150	0.23	12,909	20.13	557	199	0.31	20,849	32.51
468	93	0.15	7,680	11.98	513	157	0.24	13,066	20.37	558	203	0.32	21,052	32.83
469	92	0.14	7,772	12.12	514	138	0.22	13,204	20.59	559	199	0.31	21,251	33.14
470	86	0.13	7,858	12.25	515	159	0.25	13,363	20.84	560	196	0.31	21,447	33.44
471	93	0.15	7,951	12.40	516	165	0.26	13,528	21.09	561	211	0.33	21,658	33.77
472	102	0.16	8,053	12.56	517	161	0.25	13,689	21.35	562	225	0.35	21,883	34.12
473	110	0.17	8,163	12.73	518	170	0.27	13,859	21.61	563	205	0.32	22,088	34.44
474	104	0.16	8,267	12.89	519	161	0.25	14,020	21.86	564	213	0.33	22,301	34.77
475	98	0.15	8,365	13.04	520	135	0.21	14,155	22.07	565	225	0.35	22,526	35.13
476	120	0.19	8,485	13.23	521	178	0.28	14,333	22.35	566	196	0.31	22,722	35.43
477	91	0.14	8,576	13.37	522	162	0.25	14,495	22.60	567	214	0.33	22,936	35.76
478	106	0.17	8,682	13.54	523	149	0.23	14,644	22.83	568	230	0.36	23,166	36.12
479	91	0.14	8,773	13.68	524	140	0.22	14,784	23.05	569	214	0.33	23,380	36.46

**Table 26. Grade 4 Cumulative Frequency Distribution of Scale Scores (continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
570	231	0.36	23,611	36.82	615	257	0.40	34,312	53.50	660	236	0.37	45,120	70.36
571	229	0.36	23,840	37.17	616	281	0.44	34,593	53.94	661	249	0.39	45,369	70.75
572	219	0.34	24,059	37.52	617	250	0.39	34,843	54.33	662	235	0.37	45,604	71.11
573	232	0.36	24,291	37.88	618	261	0.41	35,104	54.74	663	243	0.38	45,847	71.49
574	248	0.39	24,539	38.26	619	229	0.36	35,333	55.10	664	207	0.32	46,054	71.81
575	229	0.36	24,768	38.62	620	272	0.42	35,605	55.52	665	249	0.39	46,303	72.20
576	229	0.36	24,997	38.98	621	254	0.40	35,859	55.92	666	239	0.37	46,542	72.57
577	224	0.35	25,221	39.33	622	250	0.39	36,109	56.31	667	230	0.36	46,772	72.93
578	230	0.36	25,451	39.69	623	223	0.35	36,332	56.65	668	207	0.32	46,979	73.26
579	233	0.36	25,684	40.05	624	276	0.43	36,608	57.08	669	235	0.37	47,214	73.62
580	237	0.37	25,921	40.42	625	242	0.38	36,850	57.46	670	231	0.36	47,445	73.98
581	227	0.35	26,148	40.77	626	250	0.39	37,100	57.85	671	215	0.34	47,660	74.32
582	223	0.35	26,371	41.12	627	227	0.35	37,327	58.21	672	232	0.36	47,892	74.68
583	245	0.38	26,616	41.50	628	263	0.41	37,590	58.62	673	226	0.35	48,118	75.03
584	203	0.32	26,819	41.82	629	206	0.32	37,796	58.94	674	230	0.36	48,348	75.39
585	239	0.37	27,058	42.19	630	248	0.39	38,044	59.32	675	203	0.32	48,551	75.71
586	263	0.41	27,321	42.60	631	228	0.36	38,272	59.68	676	230	0.36	48,781	76.07
587	214	0.33	27,535	42.94	632	249	0.39	38,521	60.07	677	228	0.36	49,009	76.42
588	199	0.31	27,734	43.25	633	211	0.33	38,732	60.40	678	249	0.39	49,258	76.81
589	227	0.35	27,961	43.60	634	242	0.38	38,974	60.77	679	200	0.31	49,458	77.12
590	247	0.39	28,208	43.99	635	257	0.40	39,231	61.17	680	183	0.29	49,641	77.41
591	208	0.32	28,416	44.31	636	237	0.37	39,468	61.54	681	196	0.31	49,837	77.71
592	257	0.40	28,673	44.71	637	248	0.39	39,716	61.93	682	200	0.31	50,037	78.02
593	233	0.36	28,906	45.07	638	236	0.37	39,952	62.30	683	218	0.34	50,255	78.36
594	241	0.38	29,147	45.45	639	221	0.34	40,173	62.64	684	204	0.32	50,459	78.68
595	233	0.36	29,380	45.81	640	236	0.37	40,409	63.01	685	206	0.32	50,665	79.00
596	228	0.36	29,608	46.17	641	250	0.39	40,659	63.40	686	177	0.28	50,842	79.28
597	225	0.35	29,833	46.52	642	223	0.35	40,882	63.75	687	197	0.31	51,039	79.59
598	242	0.38	30,075	46.90	643	231	0.36	41,113	64.11	688	209	0.33	51,248	79.91
599	254	0.40	30,329	47.29	644	230	0.36	41,343	64.47	689	184	0.29	51,432	80.20
600	238	0.37	30,567	47.66	645	239	0.37	41,582	64.84	690	209	0.33	51,641	80.53
601	248	0.39	30,815	48.05	646	245	0.38	41,827	65.22	691	210	0.33	51,851	80.85
602	247	0.39	31,062	48.44	647	235	0.37	42,062	65.59	692	212	0.33	52,063	81.18
603	258	0.40	31,320	48.84	648	217	0.34	42,279	65.93	693	194	0.30	52,257	81.49
604	263	0.41	31,583	49.25	649	248	0.39	42,527	66.31	694	191	0.30	52,448	81.78
605	263	0.41	31,846	49.66	650	243	0.38	42,770	66.69	695	203	0.32	52,651	82.10
606	249	0.39	32,095	50.05	651	229	0.36	42,999	67.05	696	190	0.30	52,841	82.40
607	241	0.38	32,336	50.42	652	250	0.39	43,249	67.44	697	204	0.32	53,045	82.71
608	249	0.39	32,585	50.81	653	241	0.38	43,490	67.82	698	183	0.29	53,228	83.00
609	266	0.41	32,851	51.23	654	234	0.36	43,724	68.18	699	179	0.28	53,407	83.28
610	252	0.39	33,103	51.62	655	240	0.37	43,964	68.55	700	140	0.22	53,547	83.50
611	243	0.38	33,346	52.00	656	211	0.33	44,175	68.88	701	176	0.27	53,723	83.77
612	242	0.38	33,588	52.37	657	220	0.34	44,395	69.23	702	173	0.27	53,896	84.04
613	247	0.39	33,835	52.76	658	244	0.38	44,639	69.61	703	159	0.25	54,055	84.29
614	220	0.34	34,055	53.10	659	245	0.38	44,884	69.99	704	183	0.29	54,238	84.58

**Table 26. Grade 4 Cumulative Frequency Distribution of Scale Scores (continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
705	151	0.24	54,389	84.81	750	96	0.15	60,412	94.20	795	34	0.05	63,099	98.39
706	170	0.27	54,559	85.08	751	85	0.13	60,497	94.33	796	35	0.05	63,134	98.45
707	150	0.23	54,709	85.31	752	99	0.15	60,596	94.49	797	28	0.04	63,162	98.49
708	158	0.25	54,867	85.56	753	95	0.15	60,691	94.64	798	26	0.04	63,188	98.53
709	173	0.27	55,040	85.83	754	76	0.12	60,767	94.76	799	29	0.05	63,217	98.58
710	141	0.22	55,181	86.05	755	85	0.13	60,852	94.89	800	23	0.04	63,240	98.61
711	158	0.25	55,339	86.29	756	85	0.13	60,937	95.02	801	21	0.03	63,261	98.64
712	162	0.25	55,501	86.54	757	86	0.13	61,023	95.16	802	19	0.03	63,280	98.67
713	180	0.28	55,681	86.83	758	67	0.10	61,090	95.26	803	35	0.05	63,315	98.73
714	152	0.24	55,833	87.06	759	68	0.11	61,158	95.37	804	25	0.04	63,340	98.77
715	180	0.28	56,013	87.34	760	91	0.14	61,249	95.51	805	20	0.03	63,360	98.80
716	175	0.27	56,188	87.62	761	77	0.12	61,326	95.63	806	22	0.03	63,382	98.83
717	139	0.22	56,327	87.83	762	64	0.10	61,390	95.73	807	29	0.05	63,411	98.88
718	154	0.24	56,481	88.07	763	63	0.10	61,453	95.83	808	26	0.04	63,437	98.92
719	150	0.23	56,631	88.31	764	71	0.11	61,524	95.94	809	28	0.04	63,465	98.96
720	147	0.23	56,778	88.54	765	72	0.11	61,596	96.05	810	18	0.03	63,483	98.99
721	142	0.22	56,920	88.76	766	58	0.09	61,654	96.14	811	24	0.04	63,507	99.03
722	131	0.20	57,051	88.96	767	69	0.11	61,723	96.25	812	24	0.04	63,531	99.07
723	131	0.20	57,182	89.17	768	58	0.09	61,781	96.34	813	13	0.02	63,544	99.09
724	145	0.23	57,327	89.39	769	74	0.12	61,855	96.45	814	16	0.02	63,560	99.11
725	141	0.22	57,468	89.61	770	62	0.10	61,917	96.55	815	14	0.02	63,574	99.13
726	119	0.19	57,587	89.80	771	53	0.08	61,970	96.63	816	19	0.03	63,593	99.16
727	150	0.23	57,737	90.03	772	61	0.10	62,031	96.73	817	17	0.03	63,610	99.19
728	138	0.22	57,875	90.25	773	60	0.09	62,091	96.82	818	18	0.03	63,628	99.22
729	149	0.23	58,024	90.48	774	47	0.07	62,138	96.89	819	10	0.02	63,638	99.23
730	123	0.19	58,147	90.67	775	56	0.09	62,194	96.98	820	20	0.03	63,658	99.26
731	129	0.20	58,276	90.87	776	63	0.10	62,257	97.08	821	18	0.03	63,676	99.29
732	117	0.18	58,393	91.05	777	53	0.08	62,310	97.16	822	14	0.02	63,690	99.31
733	122	0.19	58,515	91.24	778	68	0.11	62,378	97.27	823	19	0.03	63,709	99.34
734	127	0.20	58,642	91.44	779	47	0.07	62,425	97.34	824	15	0.02	63,724	99.37
735	121	0.19	58,763	91.63	780	43	0.07	62,468	97.41	825	8	0.01	63,732	99.38
736	136	0.21	58,899	91.84	781	43	0.07	62,511	97.48	826	12	0.02	63,744	99.40
737	128	0.20	59,027	92.04	782	47	0.07	62,558	97.55	827	8	0.01	63,752	99.41
738	109	0.17	59,136	92.21	783	55	0.09	62,613	97.63	828	10	0.02	63,762	99.43
739	117	0.18	59,253	92.40	784	36	0.06	62,649	97.69	829	14	0.02	63,776	99.45
740	122	0.19	59,375	92.59	785	47	0.07	62,696	97.76	830	12	0.02	63,788	99.47
741	99	0.15	59,474	92.74	786	50	0.08	62,746	97.84	831	8	0.01	63,796	99.48
742	119	0.19	59,593	92.93	787	43	0.07	62,789	97.91	832	11	0.02	63,807	99.50
743	118	0.18	59,711	93.11	788	51	0.08	62,840	97.99	833	6	0.01	63,813	99.51
744	103	0.16	59,814	93.27	789	50	0.08	62,890	98.07	834	9	0.01	63,822	99.52
745	95	0.15	59,909	93.42	790	44	0.07	62,934	98.14	835	11	0.02	63,833	99.54
746	102	0.16	60,011	93.58	791	31	0.05	62,965	98.18	836	12	0.02	63,845	99.56
747	116	0.18	60,127	93.76	792	28	0.04	62,993	98.23	837	10	0.02	63,855	99.57
748	94	0.15	60,221	93.90	793	38	0.06	63,031	98.29	838	9	0.01	63,864	99.59
749	95	0.15	60,316	94.05	794	34	0.05	63,065	98.34	839	7	0.01	63,871	99.60



**Table 26. Grade 4 Cumulative Frequency Distribution of Scale Scores (continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
840	7	0.01	63,878	99.61	889	1	0.00	64,081	99.92
841	6	0.01	63,884	99.62	891	2	0.00	64,083	99.93
842	10	0.02	63,894	99.63	892	1	0.00	64,084	99.93
843	8	0.01	63,902	99.64	893	1	0.00	64,085	99.93
844	11	0.02	63,913	99.66	894	4	0.01	64,089	99.94
845	8	0.01	63,921	99.67	895	2	0.00	64,091	99.94
846	10	0.02	63,931	99.69	896	1	0.00	64,092	99.94
847	6	0.01	63,937	99.70	897	1	0.00	64,093	99.94
848	4	0.01	63,941	99.71	898	3	0.00	64,096	99.95
849	10	0.02	63,951	99.72	899	1	0.00	64,097	99.95
850	6	0.01	63,957	99.73	900	33	0.05	64,130	100.00
851	4	0.01	63,961	99.74					
852	6	0.01	63,967	99.75					
853	6	0.01	63,973	99.76					
854	5	0.01	63,978	99.76					
855	6	0.01	63,984	99.77					
857	3	0.00	63,987	99.78					
858	6	0.01	63,993	99.79					
859	2	0.00	63,995	99.79					
860	6	0.01	64,001	99.80					
861	4	0.01	64,005	99.81					
862	4	0.01	64,009	99.81					
863	5	0.01	64,014	99.82					
864	5	0.01	64,019	99.83					
865	4	0.01	64,023	99.83					
866	5	0.01	64,028	99.84					
867	4	0.01	64,032	99.85					
868	2	0.00	64,034	99.85					
869	6	0.01	64,040	99.86					
870	2	0.00	64,042	99.86					
871	1	0.00	64,043	99.86					
872	3	0.00	64,046	99.87					
873	4	0.01	64,050	99.88					
874	6	0.01	64,056	99.88					
875	1	0.00	64,057	99.89					
876	3	0.00	64,060	99.89					
877	3	0.00	64,063	99.90					
878	2	0.00	64,065	99.90					
879	2	0.00	64,067	99.90					
881	2	0.00	64,069	99.90					
882	2	0.00	64,071	99.91					
883	2	0.00	64,073	99.91					
884	2	0.00	64,075	99.91					
886	2	0.00	64,077	99.92					
888	3	0.00	64,080	99.92					

**Table 27. Grade 5 Cumulative Frequency Distribution of Scale Scores**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
300	605	0.94	605	0.94	345	18	0.03	1,190	1.85	390	36	0.06	2,330	3.62
301	9	0.01	614	0.95	346	17	0.03	1,207	1.87	391	38	0.06	2,368	3.68
302	9	0.01	623	0.97	347	16	0.02	1,223	1.90	392	39	0.06	2,407	3.74
303	9	0.01	632	0.98	348	21	0.03	1,244	1.93	393	32	0.05	2,439	3.79
304	11	0.02	643	1.00	349	19	0.03	1,263	1.96	394	37	0.06	2,476	3.85
305	6	0.01	649	1.01	350	26	0.04	1,289	2.00	395	40	0.06	2,516	3.91
306	8	0.01	657	1.02	351	19	0.03	1,308	2.03	396	35	0.05	2,551	3.96
307	14	0.02	671	1.04	352	17	0.03	1,325	2.06	397	38	0.06	2,589	4.02
308	11	0.02	682	1.06	353	19	0.03	1,344	2.09	398	40	0.06	2,629	4.08
309	19	0.03	701	1.09	354	25	0.04	1,369	2.13	399	40	0.06	2,669	4.15
310	11	0.02	712	1.11	355	18	0.03	1,387	2.15	400	49	0.08	2,718	4.22
311	11	0.02	723	1.12	356	22	0.03	1,409	2.19	401	34	0.05	2,752	4.27
312	9	0.01	732	1.14	357	16	0.02	1,425	2.21	402	47	0.07	2,799	4.35
313	12	0.02	744	1.16	358	21	0.03	1,446	2.25	403	40	0.06	2,839	4.41
314	7	0.01	751	1.17	359	18	0.03	1,464	2.27	404	46	0.07	2,885	4.48
315	14	0.02	765	1.19	360	25	0.04	1,489	2.31	405	48	0.07	2,933	4.56
316	14	0.02	779	1.21	361	19	0.03	1,508	2.34	406	60	0.09	2,993	4.65
317	8	0.01	787	1.22	362	13	0.02	1,521	2.36	407	46	0.07	3,039	4.72
318	7	0.01	794	1.23	363	27	0.04	1,548	2.40	408	55	0.09	3,094	4.81
319	12	0.02	806	1.25	364	23	0.04	1,571	2.44	409	47	0.07	3,141	4.88
320	12	0.02	818	1.27	365	20	0.03	1,591	2.47	410	52	0.08	3,193	4.96
321	12	0.02	830	1.29	366	15	0.02	1,606	2.49	411	43	0.07	3,236	5.03
322	10	0.02	840	1.30	367	24	0.04	1,630	2.53	412	61	0.09	3,297	5.12
323	11	0.02	851	1.32	368	27	0.04	1,657	2.57	413	44	0.07	3,341	5.19
324	15	0.02	866	1.35	369	26	0.04	1,683	2.61	414	45	0.07	3,386	5.26
325	17	0.03	883	1.37	370	30	0.05	1,713	2.66	415	49	0.08	3,435	5.34
326	14	0.02	897	1.39	371	22	0.03	1,735	2.69	416	38	0.06	3,473	5.39
327	20	0.03	917	1.42	372	34	0.05	1,769	2.75	417	39	0.06	3,512	5.45
328	5	0.01	922	1.43	373	34	0.05	1,803	2.80	418	41	0.06	3,553	5.52
329	8	0.01	930	1.44	374	27	0.04	1,830	2.84	419	50	0.08	3,603	5.60
330	14	0.02	944	1.47	375	21	0.03	1,851	2.87	420	53	0.08	3,656	5.68
331	13	0.02	957	1.49	376	31	0.05	1,882	2.92	421	53	0.08	3,709	5.76
332	14	0.02	971	1.51	377	29	0.05	1,911	2.97	422	63	0.10	3,772	5.86
333	19	0.03	990	1.54	378	25	0.04	1,936	3.01	423	62	0.10	3,834	5.95
334	13	0.02	1,003	1.56	379	30	0.05	1,966	3.05	424	57	0.09	3,891	6.04
335	17	0.03	1,020	1.58	380	29	0.05	1,995	3.10	425	59	0.09	3,950	6.14
336	11	0.02	1,031	1.60	381	35	0.05	2,030	3.15	426	58	0.09	4,008	6.23
337	15	0.02	1,046	1.62	382	31	0.05	2,061	3.20	427	66	0.10	4,074	6.33
338	18	0.03	1,064	1.65	383	35	0.05	2,096	3.26	428	56	0.09	4,130	6.41
339	25	0.04	1,089	1.69	384	37	0.06	2,133	3.31	429	60	0.09	4,190	6.51
340	17	0.03	1,106	1.72	385	34	0.05	2,167	3.37	430	59	0.09	4,249	6.60
341	19	0.03	1,125	1.75	386	30	0.05	2,197	3.41	431	49	0.08	4,298	6.68
342	18	0.03	1,143	1.78	387	43	0.07	2,240	3.48	432	49	0.08	4,347	6.75
343	16	0.02	1,159	1.80	388	27	0.04	2,267	3.52	433	61	0.09	4,408	6.85
344	13	0.02	1,172	1.82	389	27	0.04	2,294	3.56	434	49	0.08	4,457	6.92

**Table 27. Grade 5 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
435	85	0.13	4,542	7.05	480	97	0.15	8,447	13.12	525	189	0.29	14,678	22.80
436	68	0.11	4,610	7.16	481	102	0.16	8,549	13.28	526	143	0.22	14,821	23.02
437	66	0.10	4,676	7.26	482	108	0.17	8,657	13.45	527	151	0.23	14,972	23.25
438	77	0.12	4,753	7.38	483	107	0.17	8,764	13.61	528	154	0.24	15,126	23.49
439	64	0.10	4,817	7.48	484	124	0.19	8,888	13.80	529	156	0.24	15,282	23.74
440	79	0.12	4,896	7.60	485	122	0.19	9,010	13.99	530	184	0.29	15,466	24.02
441	66	0.10	4,962	7.71	486	141	0.22	9,151	14.21	531	161	0.25	15,627	24.27
442	77	0.12	5,039	7.83	487	117	0.18	9,268	14.40	532	161	0.25	15,788	24.52
443	76	0.12	5,115	7.94	488	121	0.19	9,389	14.58	533	193	0.30	15,981	24.82
444	64	0.10	5,179	8.04	489	126	0.20	9,515	14.78	534	180	0.28	16,161	25.10
445	71	0.11	5,250	8.15	490	125	0.19	9,640	14.97	535	183	0.28	16,344	25.39
446	72	0.11	5,322	8.27	491	101	0.16	9,741	15.13	536	194	0.30	16,538	25.69
447	58	0.09	5,380	8.36	492	125	0.19	9,866	15.32	537	183	0.28	16,721	25.97
448	71	0.11	5,451	8.47	493	100	0.16	9,966	15.48	538	186	0.29	16,907	26.26
449	84	0.13	5,535	8.60	494	122	0.19	10,088	15.67	539	185	0.29	17,092	26.55
450	77	0.12	5,612	8.72	495	126	0.20	10,214	15.86	540	178	0.28	17,270	26.82
451	89	0.14	5,701	8.85	496	129	0.20	10,343	16.06	541	179	0.28	17,449	27.10
452	83	0.13	5,784	8.98	497	136	0.21	10,479	16.28	542	188	0.29	17,637	27.39
453	86	0.13	5,870	9.12	498	110	0.17	10,589	16.45	543	196	0.30	17,833	27.70
454	76	0.12	5,946	9.24	499	144	0.22	10,733	16.67	544	210	0.33	18,043	28.02
455	78	0.12	6,024	9.36	500	145	0.23	10,878	16.90	545	194	0.30	18,237	28.33
456	84	0.13	6,108	9.49	501	147	0.23	11,025	17.12	546	210	0.33	18,447	28.65
457	79	0.12	6,187	9.61	502	147	0.23	11,172	17.35	547	195	0.30	18,642	28.95
458	88	0.14	6,275	9.75	503	130	0.20	11,302	17.55	548	190	0.30	18,832	29.25
459	91	0.14	6,366	9.89	504	139	0.22	11,441	17.77	549	216	0.34	19,048	29.59
460	86	0.13	6,452	10.02	505	140	0.22	11,581	17.99	550	201	0.31	19,249	29.90
461	97	0.15	6,549	10.17	506	133	0.21	11,714	18.19	551	185	0.29	19,434	30.18
462	86	0.13	6,635	10.31	507	140	0.22	11,854	18.41	552	203	0.32	19,637	30.50
463	94	0.15	6,729	10.45	508	149	0.23	12,003	18.64	553	190	0.30	19,827	30.80
464	94	0.15	6,823	10.60	509	151	0.23	12,154	18.88	554	199	0.31	20,026	31.10
465	106	0.16	6,929	10.76	510	144	0.22	12,298	19.10	555	221	0.34	20,247	31.45
466	92	0.14	7,021	10.91	511	140	0.22	12,438	19.32	556	179	0.28	20,426	31.73
467	93	0.14	7,114	11.05	512	158	0.25	12,596	19.56	557	203	0.32	20,629	32.04
468	98	0.15	7,212	11.20	513	134	0.21	12,730	19.77	558	219	0.34	20,848	32.38
469	100	0.16	7,312	11.36	514	152	0.24	12,882	20.01	559	202	0.31	21,050	32.69
470	109	0.17	7,421	11.53	515	147	0.23	13,029	20.24	560	216	0.34	21,266	33.03
471	95	0.15	7,516	11.67	516	146	0.23	13,175	20.46	561	259	0.40	21,525	33.43
472	90	0.14	7,606	11.81	517	173	0.27	13,348	20.73	562	249	0.39	21,774	33.82
473	116	0.18	7,722	11.99	518	140	0.22	13,488	20.95	563	220	0.34	21,994	34.16
474	101	0.16	7,823	12.15	519	157	0.24	13,645	21.19	564	240	0.37	22,234	34.53
475	101	0.16	7,924	12.31	520	165	0.26	13,810	21.45	565	230	0.36	22,464	34.89
476	103	0.16	8,027	12.47	521	169	0.26	13,979	21.71	566	213	0.33	22,677	35.22
477	99	0.15	8,126	12.62	522	150	0.23	14,129	21.95	567	197	0.31	22,874	35.53
478	97	0.15	8,223	12.77	523	203	0.32	14,332	22.26	568	221	0.34	23,095	35.87
479	127	0.20	8,350	12.97	524	157	0.24	14,489	22.50	569	221	0.34	23,316	36.21

**Table 27. Grade 5 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
570	211	0.33	23,527	36.54	615	227	0.35	34,221	53.15	660	254	0.39	45,473	70.63
571	221	0.34	23,748	36.89	616	237	0.37	34,458	53.52	661	225	0.35	45,698	70.98
572	191	0.30	23,939	37.18	617	252	0.39	34,710	53.91	662	244	0.38	45,942	71.36
573	224	0.35	24,163	37.53	618	233	0.36	34,943	54.27	663	239	0.37	46,181	71.73
574	234	0.36	24,397	37.89	619	255	0.40	35,198	54.67	664	236	0.37	46,417	72.10
575	217	0.34	24,614	38.23	620	253	0.39	35,451	55.06	665	212	0.33	46,629	72.42
576	199	0.31	24,813	38.54	621	247	0.38	35,698	55.45	666	206	0.32	46,835	72.74
577	249	0.39	25,062	38.93	622	280	0.43	35,978	55.88	667	247	0.38	47,082	73.13
578	217	0.34	25,279	39.26	623	234	0.36	36,212	56.24	668	204	0.32	47,286	73.44
579	224	0.35	25,503	39.61	624	258	0.40	36,470	56.65	669	227	0.35	47,513	73.80
580	224	0.35	25,727	39.96	625	267	0.41	36,737	57.06	670	214	0.33	47,727	74.13
581	256	0.40	25,983	40.36	626	277	0.43	37,014	57.49	671	189	0.29	47,916	74.42
582	199	0.31	26,182	40.67	627	247	0.38	37,261	57.87	672	212	0.33	48,128	74.75
583	208	0.32	26,390	40.99	628	280	0.43	37,541	58.31	673	206	0.32	48,334	75.07
584	242	0.38	26,632	41.36	629	230	0.36	37,771	58.67	674	197	0.31	48,531	75.38
585	231	0.36	26,863	41.72	630	265	0.41	38,036	59.08	675	206	0.32	48,737	75.70
586	243	0.38	27,106	42.10	631	264	0.41	38,300	59.49	676	214	0.33	48,951	76.03
587	267	0.41	27,373	42.52	632	243	0.38	38,543	59.87	677	216	0.34	49,167	76.37
588	239	0.37	27,612	42.89	633	262	0.41	38,805	60.27	678	214	0.33	49,381	76.70
589	246	0.38	27,858	43.27	634	243	0.38	39,048	60.65	679	196	0.30	49,577	77.00
590	193	0.30	28,051	43.57	635	245	0.38	39,293	61.03	680	236	0.37	49,813	77.37
591	252	0.39	28,303	43.96	636	219	0.34	39,512	61.37	681	208	0.32	50,021	77.69
592	235	0.37	28,538	44.33	637	251	0.39	39,763	61.76	682	210	0.33	50,231	78.02
593	263	0.41	28,801	44.73	638	229	0.36	39,992	62.12	683	205	0.32	50,436	78.34
594	230	0.36	29,031	45.09	639	245	0.38	40,237	62.50	684	214	0.33	50,650	78.67
595	219	0.34	29,250	45.43	640	256	0.40	40,493	62.89	685	207	0.32	50,857	78.99
596	252	0.39	29,502	45.82	641	287	0.45	40,780	63.34	686	198	0.31	51,055	79.30
597	235	0.37	29,737	46.19	642	245	0.38	41,025	63.72	687	220	0.34	51,275	79.64
598	260	0.40	29,997	46.59	643	260	0.40	41,285	64.12	688	192	0.30	51,467	79.94
599	234	0.36	30,231	46.95	644	241	0.37	41,526	64.50	689	192	0.30	51,659	80.24
600	257	0.40	30,488	47.35	645	234	0.36	41,760	64.86	690	188	0.29	51,847	80.53
601	262	0.41	30,750	47.76	646	234	0.36	41,994	65.23	691	209	0.32	52,056	80.85
602	232	0.36	30,982	48.12	647	256	0.40	42,250	65.62	692	166	0.26	52,222	81.11
603	222	0.34	31,204	48.47	648	233	0.36	42,483	65.98	693	168	0.26	52,390	81.37
604	260	0.40	31,464	48.87	649	253	0.39	42,736	66.38	694	186	0.29	52,576	81.66
605	229	0.36	31,693	49.23	650	250	0.39	42,986	66.77	695	188	0.29	52,764	81.95
606	265	0.41	31,958	49.64	651	259	0.40	43,245	67.17	696	192	0.30	52,956	82.25
607	230	0.36	32,188	49.99	652	233	0.36	43,478	67.53	697	177	0.27	53,133	82.53
608	241	0.37	32,429	50.37	653	253	0.39	43,731	67.92	698	216	0.34	53,349	82.86
609	267	0.41	32,696	50.78	654	292	0.45	44,023	68.38	699	188	0.29	53,537	83.15
610	284	0.44	32,980	51.22	655	243	0.38	44,266	68.75	700	189	0.29	53,726	83.45
611	256	0.40	33,236	51.62	656	252	0.39	44,518	69.15	701	185	0.29	53,911	83.73
612	275	0.43	33,511	52.05	657	243	0.38	44,761	69.52	702	193	0.30	54,104	84.03
613	245	0.38	33,756	52.43	658	224	0.35	44,985	69.87	703	187	0.29	54,291	84.33
614	238	0.37	33,994	52.80	659	234	0.36	45,219	70.23	704	177	0.27	54,468	84.60

**Table 27. Grade 5 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
705	174	0.27	54,642	84.87	750	103	0.16	60,585	94.10	795	33	0.05	63,333	98.37
706	172	0.27	54,814	85.14	751	116	0.18	60,701	94.28	796	31	0.05	63,364	98.42
707	176	0.27	54,990	85.41	752	80	0.12	60,781	94.41	797	45	0.07	63,409	98.49
708	152	0.24	55,142	85.65	753	86	0.13	60,867	94.54	798	23	0.04	63,432	98.52
709	166	0.26	55,308	85.90	754	101	0.16	60,968	94.70	799	33	0.05	63,465	98.57
710	171	0.27	55,479	86.17	755	83	0.13	61,051	94.82	800	28	0.04	63,493	98.62
711	167	0.26	55,646	86.43	756	75	0.12	61,126	94.94	801	39	0.06	63,532	98.68
712	176	0.27	55,822	86.70	757	84	0.13	61,210	95.07	802	35	0.05	63,567	98.73
713	145	0.23	55,967	86.93	758	81	0.13	61,291	95.20	803	23	0.04	63,590	98.77
714	142	0.22	56,109	87.15	759	99	0.15	61,390	95.35	804	31	0.05	63,621	98.82
715	167	0.26	56,276	87.41	760	73	0.11	61,463	95.46	805	24	0.04	63,645	98.85
716	147	0.23	56,423	87.64	761	68	0.11	61,531	95.57	806	29	0.05	63,674	98.90
717	136	0.21	56,559	87.85	762	68	0.11	61,599	95.68	807	22	0.03	63,696	98.93
718	146	0.23	56,705	88.07	763	66	0.10	61,665	95.78	808	19	0.03	63,715	98.96
719	157	0.24	56,862	88.32	764	80	0.12	61,745	95.90	809	22	0.03	63,737	99.00
720	147	0.23	57,009	88.55	765	78	0.12	61,823	96.02	810	25	0.04	63,762	99.04
721	157	0.24	57,166	88.79	766	66	0.10	61,889	96.13	811	18	0.03	63,780	99.06
722	158	0.25	57,324	89.04	767	61	0.09	61,950	96.22	812	23	0.04	63,803	99.10
723	145	0.23	57,469	89.26	768	69	0.11	62,019	96.33	813	17	0.03	63,820	99.13
724	168	0.26	57,637	89.52	769	55	0.09	62,074	96.41	814	27	0.04	63,847	99.17
725	123	0.19	57,760	89.71	770	71	0.11	62,145	96.52	815	21	0.03	63,868	99.20
726	142	0.22	57,902	89.93	771	61	0.09	62,206	96.62	816	22	0.03	63,890	99.23
727	140	0.22	58,042	90.15	772	57	0.09	62,263	96.71	817	17	0.03	63,907	99.26
728	125	0.19	58,167	90.35	773	60	0.09	62,323	96.80	818	13	0.02	63,920	99.28
729	133	0.21	58,300	90.55	774	54	0.08	62,377	96.88	819	19	0.03	63,939	99.31
730	128	0.20	58,428	90.75	775	54	0.08	62,431	96.97	820	10	0.02	63,949	99.33
731	124	0.19	58,552	90.94	776	60	0.09	62,491	97.06	821	14	0.02	63,963	99.35
732	85	0.13	58,637	91.08	777	58	0.09	62,549	97.15	822	14	0.02	63,977	99.37
733	127	0.20	58,764	91.27	778	56	0.09	62,605	97.24	823	17	0.03	63,994	99.40
734	114	0.18	58,878	91.45	779	59	0.09	62,664	97.33	824	6	0.01	64,000	99.41
735	107	0.17	58,985	91.62	780	45	0.07	62,709	97.40	825	18	0.03	64,018	99.43
736	129	0.20	59,114	91.82	781	43	0.07	62,752	97.47	826	11	0.02	64,029	99.45
737	108	0.17	59,222	91.98	782	57	0.09	62,809	97.56	827	12	0.02	64,041	99.47
738	105	0.16	59,327	92.15	783	55	0.09	62,864	97.64	828	12	0.02	64,053	99.49
739	120	0.19	59,447	92.33	784	52	0.08	62,916	97.72	829	13	0.02	64,066	99.51
740	115	0.18	59,562	92.51	785	42	0.07	62,958	97.79	830	10	0.02	64,076	99.52
741	108	0.17	59,670	92.68	786	33	0.05	62,991	97.84	831	17	0.03	64,093	99.55
742	119	0.18	59,789	92.86	787	49	0.08	63,040	97.91	832	13	0.02	64,106	99.57
743	107	0.17	59,896	93.03	788	44	0.07	63,084	97.98	833	9	0.01	64,115	99.58
744	114	0.18	60,010	93.21	789	39	0.06	63,123	98.04	834	12	0.02	64,127	99.60
745	94	0.15	60,104	93.35	790	34	0.05	63,157	98.10	835	10	0.02	64,137	99.62
746	104	0.16	60,208	93.52	791	46	0.07	63,203	98.17	836	8	0.01	64,145	99.63
747	85	0.13	60,293	93.65	792	34	0.05	63,237	98.22	837	6	0.01	64,151	99.64
748	94	0.15	60,387	93.79	793	36	0.06	63,273	98.28	838	6	0.01	64,157	99.65
749	95	0.15	60,482	93.94	794	27	0.04	63,300	98.32	839	10	0.02	64,167	99.66

**Table 27. Grade 5 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
840	9	0.01	64,176	99.68	888	2	0.00	64,365	99.97
841	7	0.01	64,183	99.69	889	3	0.00	64,368	99.98
842	6	0.01	64,189	99.70	890	1	0.00	64,369	99.98
843	9	0.01	64,198	99.71	891	1	0.00	64,370	99.98
844	8	0.01	64,206	99.73	896	1	0.00	64,371	99.98
845	5	0.01	64,211	99.73	897	1	0.00	64,372	99.98
846	5	0.01	64,216	99.74	900	11	0.02	64,383	100.00
847	3	0.00	64,219	99.75					
849	9	0.01	64,228	99.76					
850	6	0.01	64,234	99.77					
851	6	0.01	64,240	99.78					
852	2	0.00	64,242	99.78					
853	6	0.01	64,248	99.79					
854	3	0.00	64,251	99.79					
855	4	0.01	64,255	99.80					
856	5	0.01	64,260	99.81					
857	6	0.01	64,266	99.82					
858	5	0.01	64,271	99.83					
859	3	0.00	64,274	99.83					
860	5	0.01	64,279	99.84					
861	8	0.01	64,287	99.85					
862	3	0.00	64,290	99.86					
864	6	0.01	64,296	99.86					
865	4	0.01	64,300	99.87					
866	1	0.00	64,301	99.87					
867	2	0.00	64,303	99.88					
868	5	0.01	64,308	99.88					
869	4	0.01	64,312	99.89					
870	1	0.00	64,313	99.89					
871	2	0.00	64,315	99.89					
872	4	0.01	64,319	99.90					
873	2	0.00	64,321	99.90					
874	5	0.01	64,326	99.91					
875	1	0.00	64,327	99.91					
876	2	0.00	64,329	99.92					
877	5	0.01	64,334	99.92					
878	5	0.01	64,339	99.93					
879	2	0.00	64,341	99.93					
880	4	0.01	64,345	99.94					
881	6	0.01	64,351	99.95					
882	2	0.00	64,353	99.95					
883	3	0.00	64,356	99.96					
884	4	0.01	64,360	99.96					
886	1	0.00	64,361	99.97					
887	2	0.00	64,363	99.97					

**Table 28. Grade 7 Cumulative Frequency Distribution of Scale Scores**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
300	813	1.30	813	1.30	345	14	0.02	1,392	2.22	390	30	0.05	2,517	4.01
301	11	0.02	824	1.31	346	21	0.03	1,413	2.25	391	32	0.05	2,549	4.06
302	11	0.02	835	1.33	347	26	0.04	1,439	2.29	392	30	0.05	2,579	4.11
303	16	0.03	851	1.36	348	22	0.04	1,461	2.33	393	35	0.06	2,614	4.17
304	16	0.03	867	1.38	349	17	0.03	1,478	2.36	394	39	0.06	2,653	4.23
305	8	0.01	875	1.39	350	14	0.02	1,492	2.38	395	36	0.06	2,689	4.28
306	7	0.01	882	1.41	351	25	0.04	1,517	2.42	396	37	0.06	2,726	4.34
307	8	0.01	890	1.42	352	23	0.04	1,540	2.45	397	35	0.06	2,761	4.40
308	9	0.01	899	1.43	353	21	0.03	1,561	2.49	398	50	0.08	2,811	4.48
309	15	0.02	914	1.46	354	18	0.03	1,579	2.52	399	38	0.06	2,849	4.54
310	11	0.02	925	1.47	355	19	0.03	1,598	2.55	400	33	0.05	2,882	4.59
311	6	0.01	931	1.48	356	24	0.04	1,622	2.58	401	39	0.06	2,921	4.65
312	11	0.02	942	1.50	357	20	0.03	1,642	2.62	402	43	0.07	2,964	4.72
313	8	0.01	950	1.51	358	18	0.03	1,660	2.65	403	38	0.06	3,002	4.78
314	12	0.02	962	1.53	359	18	0.03	1,678	2.67	404	36	0.06	3,038	4.84
315	9	0.01	971	1.55	360	21	0.03	1,699	2.71	405	37	0.06	3,075	4.90
316	12	0.02	983	1.57	361	23	0.04	1,722	2.74	406	48	0.08	3,123	4.98
317	13	0.02	996	1.59	362	24	0.04	1,746	2.78	407	38	0.06	3,161	5.04
318	13	0.02	1,009	1.61	363	26	0.04	1,772	2.82	408	46	0.07	3,207	5.11
319	12	0.02	1,021	1.63	364	27	0.04	1,799	2.87	409	37	0.06	3,244	5.17
320	11	0.02	1,032	1.64	365	30	0.05	1,829	2.91	410	36	0.06	3,280	5.23
321	8	0.01	1,040	1.66	366	18	0.03	1,847	2.94	411	46	0.07	3,326	5.30
322	12	0.02	1,052	1.68	367	28	0.04	1,875	2.99	412	41	0.07	3,367	5.37
323	11	0.02	1,063	1.69	368	27	0.04	1,902	3.03	413	58	0.09	3,425	5.46
324	8	0.01	1,071	1.71	369	20	0.03	1,922	3.06	414	47	0.07	3,472	5.53
325	13	0.02	1,084	1.73	370	23	0.04	1,945	3.10	415	43	0.07	3,515	5.60
326	10	0.02	1,094	1.74	371	25	0.04	1,970	3.14	416	58	0.09	3,573	5.69
327	12	0.02	1,106	1.76	372	22	0.04	1,992	3.17	417	53	0.08	3,626	5.78
328	23	0.04	1,129	1.80	373	24	0.04	2,016	3.21	418	63	0.10	3,689	5.88
329	11	0.02	1,140	1.82	374	27	0.04	2,043	3.26	419	51	0.08	3,740	5.96
330	13	0.02	1,153	1.84	375	35	0.06	2,078	3.31	420	58	0.09	3,798	6.05
331	20	0.03	1,173	1.87	376	27	0.04	2,105	3.35	421	49	0.08	3,847	6.13
332	14	0.02	1,187	1.89	377	34	0.05	2,139	3.41	422	62	0.10	3,909	6.23
333	17	0.03	1,204	1.92	378	24	0.04	2,163	3.45	423	50	0.08	3,959	6.31
334	14	0.02	1,218	1.94	379	28	0.04	2,191	3.49	424	49	0.08	4,008	6.39
335	15	0.02	1,233	1.96	380	21	0.03	2,212	3.52	425	43	0.07	4,051	6.46
336	22	0.04	1,255	2.00	381	35	0.06	2,247	3.58	426	52	0.08	4,103	6.54
337	14	0.02	1,269	2.02	382	28	0.04	2,275	3.63	427	65	0.10	4,168	6.64
338	12	0.02	1,281	2.04	383	36	0.06	2,311	3.68	428	55	0.09	4,223	6.73
339	13	0.02	1,294	2.06	384	29	0.05	2,340	3.73	429	67	0.11	4,290	6.84
340	15	0.02	1,309	2.09	385	25	0.04	2,365	3.77	430	56	0.09	4,346	6.93
341	13	0.02	1,322	2.11	386	28	0.04	2,393	3.81	431	55	0.09	4,401	7.01
342	19	0.03	1,341	2.14	387	22	0.04	2,415	3.85	432	62	0.10	4,463	7.11
343	18	0.03	1,359	2.17	388	37	0.06	2,452	3.91	433	64	0.10	4,527	7.21
344	19	0.03	1,378	2.20	389	35	0.06	2,487	3.96	434	63	0.10	4,590	7.31

**Table 28. Grade 7 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
435	51	0.08	4,641	7.40	480	101	0.16	8,436	13.44	525	198	0.32	14,606	23.27
436	60	0.10	4,701	7.49	481	102	0.16	8,538	13.61	526	169	0.27	14,775	23.54
437	80	0.13	4,781	7.62	482	111	0.18	8,649	13.78	527	177	0.28	14,952	23.83
438	67	0.11	4,848	7.73	483	117	0.19	8,766	13.97	528	173	0.28	15,125	24.10
439	66	0.11	4,914	7.83	484	124	0.20	8,890	14.17	529	160	0.25	15,285	24.36
440	70	0.11	4,984	7.94	485	125	0.20	9,015	14.37	530	202	0.32	15,487	24.68
441	67	0.11	5,051	8.05	486	108	0.17	9,123	14.54	531	174	0.28	15,661	24.96
442	74	0.12	5,125	8.17	487	110	0.18	9,233	14.71	532	169	0.27	15,830	25.23
443	56	0.09	5,181	8.26	488	110	0.18	9,343	14.89	533	200	0.32	16,030	25.54
444	72	0.11	5,253	8.37	489	119	0.19	9,462	15.08	534	195	0.31	16,225	25.85
445	79	0.13	5,332	8.50	490	110	0.18	9,572	15.25	535	187	0.30	16,412	26.15
446	70	0.11	5,402	8.61	491	132	0.21	9,704	15.46	536	183	0.29	16,595	26.44
447	86	0.14	5,488	8.75	492	132	0.21	9,836	15.67	537	188	0.30	16,783	26.74
448	81	0.13	5,569	8.87	493	143	0.23	9,979	15.90	538	210	0.33	16,993	27.08
449	85	0.14	5,654	9.01	494	123	0.20	10,102	16.10	539	180	0.29	17,173	27.37
450	76	0.12	5,730	9.13	495	125	0.20	10,227	16.30	540	182	0.29	17,355	27.66
451	72	0.11	5,802	9.25	496	123	0.20	10,350	16.49	541	183	0.29	17,538	27.95
452	77	0.12	5,879	9.37	497	116	0.18	10,466	16.68	542	190	0.30	17,728	28.25
453	78	0.12	5,957	9.49	498	130	0.21	10,596	16.88	543	180	0.29	17,908	28.54
454	79	0.13	6,036	9.62	499	140	0.22	10,736	17.11	544	216	0.34	18,124	28.88
455	85	0.14	6,121	9.75	500	159	0.25	10,895	17.36	545	184	0.29	18,308	29.17
456	77	0.12	6,198	9.88	501	139	0.22	11,034	17.58	546	199	0.32	18,507	29.49
457	81	0.13	6,279	10.01	502	138	0.22	11,172	17.80	547	209	0.33	18,716	29.82
458	89	0.14	6,368	10.15	503	155	0.25	11,327	18.05	548	190	0.30	18,906	30.13
459	56	0.09	6,424	10.24	504	119	0.19	11,446	18.24	549	184	0.29	19,090	30.42
460	77	0.12	6,501	10.36	505	119	0.19	11,565	18.43	550	217	0.35	19,307	30.77
461	95	0.15	6,596	10.51	506	117	0.19	11,682	18.62	551	206	0.33	19,513	31.09
462	70	0.11	6,666	10.62	507	157	0.25	11,839	18.87	552	200	0.32	19,713	31.41
463	92	0.15	6,758	10.77	508	139	0.22	11,978	19.09	553	219	0.35	19,932	31.76
464	97	0.15	6,855	10.92	509	133	0.21	12,111	19.30	554	203	0.32	20,135	32.09
465	92	0.15	6,947	11.07	510	148	0.24	12,259	19.53	555	189	0.30	20,324	32.39
466	75	0.12	7,022	11.19	511	145	0.23	12,404	19.77	556	208	0.33	20,532	32.72
467	90	0.14	7,112	11.33	512	153	0.24	12,557	20.01	557	194	0.31	20,726	33.03
468	96	0.15	7,208	11.49	513	134	0.21	12,691	20.22	558	191	0.30	20,917	33.33
469	99	0.16	7,307	11.64	514	142	0.23	12,833	20.45	559	190	0.30	21,107	33.63
470	114	0.18	7,421	11.83	515	167	0.27	13,000	20.72	560	188	0.30	21,295	33.93
471	87	0.14	7,508	11.96	516	153	0.24	13,153	20.96	561	219	0.35	21,514	34.28
472	107	0.17	7,615	12.13	517	160	0.25	13,313	21.21	562	229	0.36	21,743	34.65
473	111	0.18	7,726	12.31	518	157	0.25	13,470	21.46	563	234	0.37	21,977	35.02
474	78	0.12	7,804	12.44	519	148	0.24	13,618	21.70	564	217	0.35	22,194	35.37
475	97	0.15	7,901	12.59	520	147	0.23	13,765	21.93	565	216	0.34	22,410	35.71
476	106	0.17	8,007	12.76	521	157	0.25	13,922	22.18	566	209	0.33	22,619	36.04
477	90	0.14	8,097	12.90	522	158	0.25	14,080	22.44	567	201	0.32	22,820	36.36
478	123	0.20	8,220	13.10	523	160	0.25	14,240	22.69	568	209	0.33	23,029	36.70
479	115	0.18	8,335	13.28	524	168	0.27	14,408	22.96	569	213	0.34	23,242	37.04



**Table 28. Grade 7 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
570	212	0.34	23,454	37.37	615	223	0.36	33,912	54.04	660	223	0.36	44,403	70.76
571	209	0.33	23,663	37.71	616	246	0.39	34,158	54.43	661	226	0.36	44,629	71.12
572	195	0.31	23,858	38.02	617	281	0.45	34,439	54.88	662	201	0.32	44,830	71.44
573	233	0.37	24,091	38.39	618	266	0.42	34,705	55.30	663	200	0.32	45,030	71.76
574	243	0.39	24,334	38.78	619	239	0.38	34,944	55.68	664	230	0.37	45,260	72.12
575	225	0.36	24,559	39.13	620	250	0.40	35,194	56.08	665	232	0.37	45,492	72.49
576	210	0.33	24,769	39.47	621	252	0.40	35,446	56.48	666	217	0.35	45,709	72.84
577	207	0.33	24,976	39.80	622	236	0.38	35,682	56.86	667	233	0.37	45,942	73.21
578	199	0.32	25,175	40.12	623	242	0.39	35,924	57.24	668	211	0.34	46,153	73.54
579	259	0.41	25,434	40.53	624	255	0.41	36,179	57.65	669	218	0.35	46,371	73.89
580	216	0.34	25,650	40.87	625	251	0.40	36,430	58.05	670	215	0.34	46,586	74.23
581	256	0.41	25,906	41.28	626	227	0.36	36,657	58.41	671	196	0.31	46,782	74.55
582	238	0.38	26,144	41.66	627	244	0.39	36,901	58.80	672	205	0.33	46,987	74.87
583	240	0.38	26,384	42.04	628	252	0.40	37,153	59.20	673	190	0.30	47,177	75.18
584	232	0.37	26,616	42.41	629	243	0.39	37,396	59.59	674	218	0.35	47,395	75.52
585	251	0.40	26,867	42.81	630	228	0.36	37,624	59.95	675	198	0.32	47,593	75.84
586	212	0.34	27,079	43.15	631	241	0.38	37,865	60.34	676	221	0.35	47,814	76.19
587	244	0.39	27,323	43.54	632	228	0.36	38,093	60.70	677	203	0.32	48,017	76.52
588	227	0.36	27,550	43.90	633	230	0.37	38,323	61.07	678	213	0.34	48,230	76.85
589	231	0.37	27,781	44.27	634	220	0.35	38,543	61.42	679	185	0.29	48,415	77.15
590	230	0.37	28,011	44.64	635	201	0.32	38,744	61.74	680	205	0.33	48,620	77.48
591	237	0.38	28,248	45.01	636	227	0.36	38,971	62.10	681	185	0.29	48,805	77.77
592	195	0.31	28,443	45.32	637	233	0.37	39,204	62.47	682	186	0.30	48,991	78.07
593	258	0.41	28,701	45.74	638	274	0.44	39,478	62.91	683	188	0.30	49,179	78.37
594	266	0.42	28,967	46.16	639	213	0.34	39,691	63.25	684	194	0.31	49,373	78.68
595	260	0.41	29,227	46.57	640	227	0.36	39,918	63.61	685	209	0.33	49,582	79.01
596	253	0.40	29,480	46.98	641	247	0.39	40,165	64.00	686	182	0.29	49,764	79.30
597	233	0.37	29,713	47.35	642	255	0.41	40,420	64.41	687	185	0.29	49,949	79.59
598	234	0.37	29,947	47.72	643	202	0.32	40,622	64.73	688	199	0.32	50,148	79.91
599	255	0.41	30,202	48.13	644	206	0.33	40,828	65.06	689	188	0.30	50,336	80.21
600	246	0.39	30,448	48.52	645	235	0.37	41,063	65.43	690	181	0.29	50,517	80.50
601	208	0.33	30,656	48.85	646	237	0.38	41,300	65.81	691	183	0.29	50,700	80.79
602	232	0.37	30,888	49.22	647	246	0.39	41,546	66.20	692	173	0.28	50,873	81.07
603	238	0.38	31,126	49.60	648	231	0.37	41,777	66.57	693	184	0.29	51,057	81.36
604	218	0.35	31,344	49.95	649	218	0.35	41,995	66.92	694	193	0.31	51,250	81.67
605	218	0.35	31,562	50.29	650	221	0.35	42,216	67.27	695	195	0.31	51,445	81.98
606	234	0.37	31,796	50.67	651	222	0.35	42,438	67.62	696	175	0.28	51,620	82.26
607	241	0.38	32,037	51.05	652	212	0.34	42,650	67.96	697	188	0.30	51,808	82.56
608	228	0.36	32,265	51.41	653	216	0.34	42,866	68.31	698	191	0.30	51,999	82.86
609	236	0.38	32,501	51.79	654	224	0.36	43,090	68.66	699	184	0.29	52,183	83.15
610	229	0.36	32,730	52.16	655	213	0.34	43,303	69.00	700	176	0.28	52,359	83.43
611	227	0.36	32,957	52.52	656	204	0.33	43,507	69.33	701	163	0.26	52,522	83.69
612	255	0.41	33,212	52.92	657	226	0.36	43,733	69.69	702	151	0.24	52,673	83.93
613	232	0.37	33,444	53.29	658	222	0.35	43,955	70.04	703	195	0.31	52,868	84.25
614	245	0.39	33,689	53.68	659	225	0.36	44,180	70.40	704	156	0.25	53,024	84.49

**Table 28. Grade 7 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
705	167	0.27	53,191	84.76	750	81	0.13	58,735	93.59	795	42	0.07	61,536	98.06
706	150	0.24	53,341	85.00	751	78	0.12	58,813	93.72	796	32	0.05	61,568	98.11
707	152	0.24	53,493	85.24	752	90	0.14	58,903	93.86	797	38	0.06	61,606	98.17
708	154	0.25	53,647	85.49	753	97	0.15	59,000	94.02	798	32	0.05	61,638	98.22
709	142	0.23	53,789	85.71	754	88	0.14	59,088	94.16	799	36	0.06	61,674	98.28
710	132	0.21	53,921	85.92	755	79	0.13	59,167	94.28	800	24	0.04	61,698	98.32
711	160	0.25	54,081	86.18	756	79	0.13	59,246	94.41	801	24	0.04	61,722	98.35
712	147	0.23	54,228	86.41	757	79	0.13	59,325	94.53	802	28	0.04	61,750	98.40
713	142	0.23	54,370	86.64	758	67	0.11	59,392	94.64	803	35	0.06	61,785	98.45
714	150	0.24	54,520	86.88	759	80	0.13	59,472	94.77	804	25	0.04	61,810	98.49
715	140	0.22	54,660	87.10	760	86	0.14	59,558	94.91	805	27	0.04	61,837	98.54
716	163	0.26	54,823	87.36	761	78	0.12	59,636	95.03	806	24	0.04	61,861	98.58
717	169	0.27	54,992	87.63	762	82	0.13	59,718	95.16	807	22	0.04	61,883	98.61
718	144	0.23	55,136	87.86	763	73	0.12	59,791	95.28	808	34	0.05	61,917	98.66
719	141	0.22	55,277	88.08	764	75	0.12	59,866	95.40	809	22	0.04	61,939	98.70
720	131	0.21	55,408	88.29	765	69	0.11	59,935	95.51	810	27	0.04	61,966	98.74
721	134	0.21	55,542	88.51	766	77	0.12	60,012	95.63	811	30	0.05	61,996	98.79
722	127	0.20	55,669	88.71	767	62	0.10	60,074	95.73	812	16	0.03	62,012	98.82
723	131	0.21	55,800	88.92	768	65	0.10	60,139	95.83	813	22	0.04	62,034	98.85
724	129	0.21	55,929	89.12	769	65	0.10	60,204	95.93	814	15	0.02	62,049	98.87
725	115	0.18	56,044	89.31	770	82	0.13	60,286	96.07	815	21	0.03	62,070	98.91
726	125	0.20	56,169	89.51	771	65	0.10	60,351	96.17	816	20	0.03	62,090	98.94
727	131	0.21	56,300	89.71	772	62	0.10	60,413	96.27	817	19	0.03	62,109	98.97
728	129	0.21	56,429	89.92	773	63	0.10	60,476	96.37	818	20	0.03	62,129	99.00
729	129	0.21	56,558	90.13	774	55	0.09	60,531	96.46	819	18	0.03	62,147	99.03
730	122	0.19	56,680	90.32	775	63	0.10	60,594	96.56	820	25	0.04	62,172	99.07
731	123	0.20	56,803	90.52	776	55	0.09	60,649	96.64	821	18	0.03	62,190	99.10
732	120	0.19	56,923	90.71	777	55	0.09	60,704	96.73	822	19	0.03	62,209	99.13
733	112	0.18	57,035	90.89	778	65	0.10	60,769	96.84	823	13	0.02	62,222	99.15
734	124	0.20	57,159	91.08	779	61	0.10	60,830	96.93	824	17	0.03	62,239	99.18
735	115	0.18	57,274	91.27	780	46	0.07	60,876	97.01	825	11	0.02	62,250	99.20
736	118	0.19	57,392	91.45	781	49	0.08	60,925	97.08	826	12	0.02	62,262	99.21
737	102	0.16	57,494	91.62	782	48	0.08	60,973	97.16	827	15	0.02	62,277	99.24
738	96	0.15	57,590	91.77	783	54	0.09	61,027	97.25	828	18	0.03	62,295	99.27
739	102	0.16	57,692	91.93	784	57	0.09	61,084	97.34	829	12	0.02	62,307	99.29
740	99	0.16	57,791	92.09	785	43	0.07	61,127	97.41	830	14	0.02	62,321	99.31
741	94	0.15	57,885	92.24	786	46	0.07	61,173	97.48	831	12	0.02	62,333	99.33
742	127	0.20	58,012	92.44	787	49	0.08	61,222	97.56	832	9	0.01	62,342	99.34
743	93	0.15	58,105	92.59	788	44	0.07	61,266	97.63	833	18	0.03	62,360	99.37
744	86	0.14	58,191	92.73	789	42	0.07	61,308	97.69	834	15	0.02	62,375	99.39
745	81	0.13	58,272	92.86	790	33	0.05	61,341	97.75	835	12	0.02	62,387	99.41
746	102	0.16	58,374	93.02	791	35	0.06	61,376	97.80	836	11	0.02	62,398	99.43
747	98	0.16	58,472	93.18	792	35	0.06	61,411	97.86	837	12	0.02	62,410	99.45
748	92	0.15	58,564	93.32	793	44	0.07	61,455	97.93	838	4	0.01	62,414	99.46
749	90	0.14	58,654	93.47	794	39	0.06	61,494	97.99	839	9	0.01	62,423	99.47

**Table 28. Grade 7 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
840	10	0.02	62,433	99.49	885	4	0.01	62,689	99.89
841	7	0.01	62,440	99.50	886	1	0.00	62,690	99.90
842	12	0.02	62,452	99.52	887	1	0.00	62,691	99.90
843	16	0.03	62,468	99.54	888	1	0.00	62,692	99.90
844	10	0.02	62,478	99.56	889	1	0.00	62,693	99.90
845	9	0.01	62,487	99.57	890	2	0.00	62,695	99.90
846	6	0.01	62,493	99.58	891	2	0.00	62,697	99.91
847	7	0.01	62,500	99.59	892	3	0.00	62,700	99.91
848	5	0.01	62,505	99.60	893	1	0.00	62,701	99.91
849	15	0.02	62,520	99.63	894	1	0.00	62,702	99.92
850	8	0.01	62,528	99.64	896	1	0.00	62,703	99.92
851	8	0.01	62,536	99.65	897	2	0.00	62,705	99.92
852	7	0.01	62,543	99.66	898	1	0.00	62,706	99.92
853	6	0.01	62,549	99.67	900	49	0.08	62,755	100.00
854	3	0.00	62,552	99.68					
855	5	0.01	62,557	99.68					
856	8	0.01	62,565	99.70					
857	10	0.02	62,575	99.71					
858	4	0.01	62,579	99.72					
859	8	0.01	62,587	99.73					
860	2	0.00	62,589	99.74					
861	4	0.01	62,593	99.74					
862	1	0.00	62,594	99.74					
863	4	0.01	62,598	99.75					
864	5	0.01	62,603	99.76					
865	4	0.01	62,607	99.76					
866	9	0.01	62,616	99.78					
867	1	0.00	62,617	99.78					
868	6	0.01	62,623	99.79					
869	8	0.01	62,631	99.80					
870	2	0.00	62,633	99.81					
871	7	0.01	62,640	99.82					
872	7	0.01	62,647	99.83					
873	2	0.00	62,649	99.83					
874	2	0.00	62,651	99.83					
875	3	0.00	62,654	99.84					
876	7	0.01	62,661	99.85					
877	2	0.00	62,663	99.85					
878	4	0.01	62,667	99.86					
879	5	0.01	62,672	99.87					
880	2	0.00	62,674	99.87					
881	4	0.01	62,678	99.88					
882	3	0.00	62,681	99.88					
883	1	0.00	62,682	99.88					
884	3	0.00	62,685	99.89					

**Table 29. Grade 8 Cumulative Frequency Distribution of Scale Scores**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
300	753	1.22	753	1.22	345	14	0.02	1,376	2.24	390	32	0.05	2,557	4.16
301	13	0.02	766	1.25	346	14	0.02	1,390	2.26	391	39	0.06	2,596	4.22
302	7	0.01	773	1.26	347	18	0.03	1,408	2.29	392	46	0.07	2,642	4.30
303	10	0.02	783	1.27	348	24	0.04	1,432	2.33	393	37	0.06	2,679	4.36
304	13	0.02	796	1.29	349	22	0.04	1,454	2.36	394	36	0.06	2,715	4.42
305	10	0.02	806	1.31	350	23	0.04	1,477	2.40	395	41	0.07	2,756	4.48
306	12	0.02	818	1.33	351	18	0.03	1,495	2.43	396	46	0.07	2,802	4.56
307	5	0.01	823	1.34	352	20	0.03	1,515	2.46	397	42	0.07	2,844	4.63
308	18	0.03	841	1.37	353	17	0.03	1,532	2.49	398	35	0.06	2,879	4.68
309	18	0.03	859	1.40	354	31	0.05	1,563	2.54	399	28	0.05	2,907	4.73
310	7	0.01	866	1.41	355	24	0.04	1,587	2.58	400	50	0.08	2,957	4.81
311	18	0.03	884	1.44	356	22	0.04	1,609	2.62	401	43	0.07	3,000	4.88
312	15	0.02	899	1.46	357	20	0.03	1,629	2.65	402	46	0.07	3,046	4.95
313	10	0.02	909	1.48	358	31	0.05	1,660	2.70	403	37	0.06	3,083	5.01
314	7	0.01	916	1.49	359	25	0.04	1,685	2.74	404	36	0.06	3,119	5.07
315	8	0.01	924	1.50	360	21	0.03	1,706	2.77	405	44	0.07	3,163	5.14
316	8	0.01	932	1.52	361	24	0.04	1,730	2.81	406	40	0.07	3,203	5.21
317	9	0.01	941	1.53	362	25	0.04	1,755	2.85	407	55	0.09	3,258	5.30
318	9	0.01	950	1.54	363	20	0.03	1,775	2.89	408	36	0.06	3,294	5.36
319	20	0.03	970	1.58	364	29	0.05	1,804	2.93	409	49	0.08	3,343	5.44
320	10	0.02	980	1.59	365	28	0.05	1,832	2.98	410	65	0.11	3,408	5.54
321	14	0.02	994	1.62	366	31	0.05	1,863	3.03	411	41	0.07	3,449	5.61
322	9	0.01	1,003	1.63	367	21	0.03	1,884	3.06	412	52	0.08	3,501	5.69
323	19	0.03	1,022	1.66	368	24	0.04	1,908	3.10	413	51	0.08	3,552	5.78
324	12	0.02	1,034	1.68	369	23	0.04	1,931	3.14	414	50	0.08	3,602	5.86
325	22	0.04	1,056	1.72	370	31	0.05	1,962	3.19	415	40	0.07	3,642	5.92
326	10	0.02	1,066	1.73	371	29	0.05	1,991	3.24	416	36	0.06	3,678	5.98
327	16	0.03	1,082	1.76	372	35	0.06	2,026	3.29	417	48	0.08	3,726	6.06
328	13	0.02	1,095	1.78	373	34	0.06	2,060	3.35	418	48	0.08	3,774	6.14
329	10	0.02	1,105	1.80	374	24	0.04	2,084	3.39	419	55	0.09	3,829	6.23
330	10	0.02	1,115	1.81	375	12	0.02	2,096	3.41	420	39	0.06	3,868	6.29
331	15	0.02	1,130	1.84	376	28	0.05	2,124	3.45	421	56	0.09	3,924	6.38
332	17	0.03	1,147	1.87	377	32	0.05	2,156	3.51	422	64	0.10	3,988	6.49
333	8	0.01	1,155	1.88	378	36	0.06	2,192	3.56	423	36	0.06	4,024	6.54
334	17	0.03	1,172	1.91	379	21	0.03	2,213	3.60	424	61	0.10	4,085	6.64
335	18	0.03	1,190	1.94	380	25	0.04	2,238	3.64	425	54	0.09	4,139	6.73
336	17	0.03	1,207	1.96	381	26	0.04	2,264	3.68	426	68	0.11	4,207	6.84
337	27	0.04	1,234	2.01	382	38	0.06	2,302	3.74	427	50	0.08	4,257	6.92
338	23	0.04	1,257	2.04	383	29	0.05	2,331	3.79	428	67	0.11	4,324	7.03
339	11	0.02	1,268	2.06	384	31	0.05	2,362	3.84	429	60	0.10	4,384	7.13
340	16	0.03	1,284	2.09	385	36	0.06	2,398	3.90	430	43	0.07	4,427	7.20
341	15	0.02	1,299	2.11	386	30	0.05	2,428	3.95	431	60	0.10	4,487	7.30
342	21	0.03	1,320	2.15	387	29	0.05	2,457	4.00	432	57	0.09	4,544	7.39
343	22	0.04	1,342	2.18	388	39	0.06	2,496	4.06	433	62	0.10	4,606	7.49
344	20	0.03	1,362	2.22	389	29	0.05	2,525	4.11	434	69	0.11	4,675	7.60

**Table 29. Grade 8 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
435	61	0.10	4,736	7.70	480	105	0.17	8,282	13.47	525	150	0.24	14,021	22.80
436	59	0.10	4,795	7.80	481	99	0.16	8,381	13.63	526	150	0.24	14,171	23.05
437	72	0.12	4,867	7.92	482	112	0.18	8,493	13.81	527	149	0.24	14,320	23.29
438	51	0.08	4,918	8.00	483	110	0.18	8,603	13.99	528	175	0.28	14,495	23.57
439	68	0.11	4,986	8.11	484	103	0.17	8,706	14.16	529	171	0.28	14,666	23.85
440	73	0.12	5,059	8.23	485	101	0.16	8,807	14.32	530	159	0.26	14,825	24.11
441	68	0.11	5,127	8.34	486	98	0.16	8,905	14.48	531	163	0.27	14,988	24.38
442	61	0.10	5,188	8.44	487	92	0.15	8,997	14.63	532	172	0.28	15,160	24.65
443	78	0.13	5,266	8.56	488	114	0.19	9,111	14.82	533	152	0.25	15,312	24.90
444	73	0.12	5,339	8.68	489	118	0.19	9,229	15.01	534	176	0.29	15,488	25.19
445	56	0.09	5,395	8.77	490	148	0.24	9,377	15.25	535	171	0.28	15,659	25.47
446	72	0.12	5,467	8.89	491	111	0.18	9,488	15.43	536	188	0.31	15,847	25.77
447	72	0.12	5,539	9.01	492	131	0.21	9,619	15.64	537	154	0.25	16,001	26.02
448	62	0.10	5,601	9.11	493	113	0.18	9,732	15.83	538	196	0.32	16,197	26.34
449	65	0.11	5,666	9.21	494	94	0.15	9,826	15.98	539	169	0.27	16,366	26.62
450	66	0.11	5,732	9.32	495	134	0.22	9,960	16.20	540	179	0.29	16,545	26.91
451	76	0.12	5,808	9.45	496	121	0.20	10,081	16.39	541	163	0.27	16,708	27.17
452	74	0.12	5,882	9.57	497	131	0.21	10,212	16.61	542	166	0.27	16,874	27.44
453	59	0.10	5,941	9.66	498	130	0.21	10,342	16.82	543	174	0.28	17,048	27.73
454	77	0.13	6,018	9.79	499	111	0.18	10,453	17.00	544	196	0.32	17,244	28.04
455	78	0.13	6,096	9.91	500	129	0.21	10,582	17.21	545	169	0.27	17,413	28.32
456	77	0.13	6,173	10.04	501	102	0.17	10,684	17.38	546	173	0.28	17,586	28.60
457	76	0.12	6,249	10.16	502	120	0.20	10,804	17.57	547	192	0.31	17,778	28.91
458	78	0.13	6,327	10.29	503	139	0.23	10,943	17.80	548	200	0.33	17,978	29.24
459	85	0.14	6,412	10.43	504	119	0.19	11,062	17.99	549	205	0.33	18,183	29.57
460	79	0.13	6,491	10.56	505	130	0.21	11,192	18.20	550	209	0.34	18,392	29.91
461	90	0.15	6,581	10.70	506	104	0.17	11,296	18.37	551	174	0.28	18,566	30.19
462	84	0.14	6,665	10.84	507	116	0.19	11,412	18.56	552	195	0.32	18,761	30.51
463	61	0.10	6,726	10.94	508	150	0.24	11,562	18.80	553	190	0.31	18,951	30.82
464	81	0.13	6,807	11.07	509	141	0.23	11,703	19.03	554	188	0.31	19,139	31.13
465	84	0.14	6,891	11.21	510	142	0.23	11,845	19.26	555	229	0.37	19,368	31.50
466	78	0.13	6,969	11.33	511	122	0.20	11,967	19.46	556	195	0.32	19,563	31.82
467	86	0.14	7,055	11.47	512	127	0.21	12,094	19.67	557	215	0.35	19,778	32.17
468	95	0.15	7,150	11.63	513	165	0.27	12,259	19.94	558	196	0.32	19,974	32.48
469	105	0.17	7,255	11.80	514	131	0.21	12,390	20.15	559	198	0.32	20,172	32.81
470	90	0.15	7,345	11.95	515	129	0.21	12,519	20.36	560	215	0.35	20,387	33.16
471	100	0.16	7,445	12.11	516	153	0.25	12,672	20.61	561	206	0.34	20,593	33.49
472	80	0.13	7,525	12.24	517	150	0.24	12,822	20.85	562	207	0.34	20,800	33.83
473	100	0.16	7,625	12.40	518	138	0.22	12,960	21.08	563	195	0.32	20,995	34.14
474	90	0.15	7,715	12.55	519	140	0.23	13,100	21.30	564	195	0.32	21,190	34.46
475	92	0.15	7,807	12.70	520	148	0.24	13,248	21.55	565	243	0.40	21,433	34.86
476	90	0.15	7,897	12.84	521	146	0.24	13,394	21.78	566	192	0.31	21,625	35.17
477	91	0.15	7,988	12.99	522	149	0.24	13,543	22.03	567	217	0.35	21,842	35.52
478	100	0.16	8,088	13.15	523	194	0.32	13,737	22.34	568	231	0.38	22,073	35.90
479	89	0.14	8,177	13.30	524	134	0.22	13,871	22.56	569	192	0.31	22,265	36.21

**Table 29. Grade 8 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
570	205	0.33	22,470	36.54	615	212	0.34	32,864	53.45	660	187	0.30	43,490	70.73
571	185	0.30	22,655	36.84	616	243	0.40	33,107	53.84	661	219	0.36	43,709	71.08
572	185	0.30	22,840	37.14	617	236	0.38	33,343	54.23	662	239	0.39	43,948	71.47
573	214	0.35	23,054	37.49	618	266	0.43	33,609	54.66	663	226	0.37	44,174	71.84
574	214	0.35	23,268	37.84	619	239	0.39	33,848	55.05	664	216	0.35	44,390	72.19
575	205	0.33	23,473	38.17	620	230	0.37	34,078	55.42	665	224	0.36	44,614	72.56
576	212	0.34	23,685	38.52	621	257	0.42	34,335	55.84	666	242	0.39	44,856	72.95
577	222	0.36	23,907	38.88	622	250	0.41	34,585	56.25	667	203	0.33	45,059	73.28
578	247	0.40	24,154	39.28	623	255	0.41	34,840	56.66	668	217	0.35	45,276	73.63
579	229	0.37	24,383	39.65	624	232	0.38	35,072	57.04	669	248	0.40	45,524	74.04
580	245	0.40	24,628	40.05	625	263	0.43	35,335	57.47	670	218	0.35	45,742	74.39
581	218	0.35	24,846	40.41	626	228	0.37	35,563	57.84	671	213	0.35	45,955	74.74
582	222	0.36	25,068	40.77	627	227	0.37	35,790	58.21	672	216	0.35	46,171	75.09
583	248	0.40	25,316	41.17	628	242	0.39	36,032	58.60	673	191	0.31	46,362	75.40
584	213	0.35	25,529	41.52	629	262	0.43	36,294	59.03	674	212	0.34	46,574	75.74
585	244	0.40	25,773	41.91	630	242	0.39	36,536	59.42	675	178	0.29	46,752	76.03
586	225	0.37	25,998	42.28	631	228	0.37	36,764	59.79	676	245	0.40	46,997	76.43
587	240	0.39	26,238	42.67	632	234	0.38	36,998	60.17	677	210	0.34	47,207	76.77
588	218	0.35	26,456	43.03	633	240	0.39	37,238	60.56	678	210	0.34	47,417	77.11
589	243	0.40	26,699	43.42	634	237	0.39	37,475	60.95	679	199	0.32	47,616	77.44
590	251	0.41	26,950	43.83	635	234	0.38	37,709	61.33	680	189	0.31	47,805	77.75
591	218	0.35	27,168	44.18	636	235	0.38	37,944	61.71	681	209	0.34	48,014	78.09
592	212	0.34	27,380	44.53	637	235	0.38	38,179	62.09	682	218	0.35	48,232	78.44
593	222	0.36	27,602	44.89	638	244	0.40	38,423	62.49	683	187	0.30	48,419	78.74
594	235	0.38	27,837	45.27	639	263	0.43	38,686	62.92	684	203	0.33	48,622	79.07
595	238	0.39	28,075	45.66	640	235	0.38	38,921	63.30	685	218	0.35	48,840	79.43
596	257	0.42	28,332	46.08	641	240	0.39	39,161	63.69	686	182	0.30	49,022	79.72
597	217	0.35	28,549	46.43	642	278	0.45	39,439	64.14	687	194	0.32	49,216	80.04
598	245	0.40	28,794	46.83	643	231	0.38	39,670	64.52	688	213	0.35	49,429	80.39
599	250	0.41	29,044	47.23	644	261	0.42	39,931	64.94	689	194	0.32	49,623	80.70
600	228	0.37	29,272	47.61	645	222	0.36	40,153	65.30	690	199	0.32	49,822	81.03
601	226	0.37	29,498	47.97	646	230	0.37	40,383	65.68	691	166	0.27	49,988	81.30
602	242	0.39	29,740	48.37	647	236	0.38	40,619	66.06	692	167	0.27	50,155	81.57
603	245	0.40	29,985	48.76	648	216	0.35	40,835	66.41	693	192	0.31	50,347	81.88
604	223	0.36	30,208	49.13	649	232	0.38	41,067	66.79	694	172	0.28	50,519	82.16
605	244	0.40	30,452	49.52	650	240	0.39	41,307	67.18	695	179	0.29	50,698	82.45
606	241	0.39	30,693	49.92	651	215	0.35	41,522	67.53	696	176	0.29	50,874	82.74
607	254	0.41	30,947	50.33	652	234	0.38	41,756	67.91	697	173	0.28	51,047	83.02
608	250	0.41	31,197	50.74	653	222	0.36	41,978	68.27	698	158	0.26	51,205	83.28
609	228	0.37	31,425	51.11	654	203	0.33	42,181	68.60	699	161	0.26	51,366	83.54
610	235	0.38	31,660	51.49	655	228	0.37	42,409	68.97	700	179	0.29	51,545	83.83
611	232	0.38	31,892	51.87	656	242	0.39	42,651	69.36	701	176	0.29	51,721	84.11
612	248	0.40	32,140	52.27	657	213	0.35	42,864	69.71	702	161	0.26	51,882	84.38
613	269	0.44	32,409	52.71	658	217	0.35	43,081	70.06	703	148	0.24	52,030	84.62
614	243	0.40	32,652	53.10	659	222	0.36	43,303	70.42	704	185	0.30	52,215	84.92

**Table 29. Grade 8 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
705	175	0.28	52,390	85.20	750	80	0.13	57,942	94.23	795	31	0.05	60,380	98.20
706	184	0.30	52,574	85.50	751	80	0.13	58,022	94.36	796	42	0.07	60,422	98.26
707	162	0.26	52,736	85.76	752	93	0.15	58,115	94.51	797	32	0.05	60,454	98.32
708	152	0.25	52,888	86.01	753	79	0.13	58,194	94.64	798	27	0.04	60,481	98.36
709	163	0.27	53,051	86.28	754	83	0.13	58,277	94.78	799	20	0.03	60,501	98.39
710	156	0.25	53,207	86.53	755	72	0.12	58,349	94.89	800	34	0.06	60,535	98.45
711	121	0.20	53,328	86.73	756	92	0.15	58,441	95.04	801	31	0.05	60,566	98.50
712	148	0.24	53,476	86.97	757	75	0.12	58,516	95.16	802	28	0.05	60,594	98.54
713	163	0.27	53,639	87.23	758	66	0.11	58,582	95.27	803	22	0.04	60,616	98.58
714	136	0.22	53,775	87.45	759	76	0.12	58,658	95.40	804	24	0.04	60,640	98.62
715	159	0.26	53,934	87.71	760	64	0.10	58,722	95.50	805	36	0.06	60,676	98.68
716	134	0.22	54,068	87.93	761	65	0.11	58,787	95.61	806	34	0.06	60,710	98.73
717	141	0.23	54,209	88.16	762	59	0.10	58,846	95.70	807	22	0.04	60,732	98.77
718	122	0.20	54,331	88.36	763	79	0.13	58,925	95.83	808	30	0.05	60,762	98.82
719	144	0.23	54,475	88.59	764	78	0.13	59,003	95.96	809	27	0.04	60,789	98.86
720	163	0.27	54,638	88.86	765	68	0.11	59,071	96.07	810	15	0.02	60,804	98.89
721	138	0.22	54,776	89.08	766	60	0.10	59,131	96.17	811	25	0.04	60,829	98.93
722	137	0.22	54,913	89.31	767	58	0.09	59,189	96.26	812	24	0.04	60,853	98.97
723	129	0.21	55,042	89.52	768	58	0.09	59,247	96.35	813	18	0.03	60,871	98.99
724	138	0.22	55,180	89.74	769	43	0.07	59,290	96.42	814	19	0.03	60,890	99.03
725	119	0.19	55,299	89.93	770	56	0.09	59,346	96.51	815	19	0.03	60,909	99.06
726	131	0.21	55,430	90.15	771	66	0.11	59,412	96.62	816	13	0.02	60,922	99.08
727	140	0.23	55,570	90.37	772	65	0.11	59,477	96.73	817	14	0.02	60,936	99.10
728	121	0.20	55,691	90.57	773	44	0.07	59,521	96.80	818	12	0.02	60,948	99.12
729	117	0.19	55,808	90.76	774	52	0.08	59,573	96.88	819	22	0.04	60,970	99.16
730	126	0.20	55,934	90.97	775	48	0.08	59,621	96.96	820	16	0.03	60,986	99.18
731	111	0.18	56,045	91.15	776	54	0.09	59,675	97.05	821	18	0.03	61,004	99.21
732	102	0.17	56,147	91.31	777	59	0.10	59,734	97.15	822	11	0.02	61,015	99.23
733	135	0.22	56,282	91.53	778	53	0.09	59,787	97.23	823	17	0.03	61,032	99.26
734	101	0.16	56,383	91.70	779	40	0.07	59,827	97.30	824	14	0.02	61,046	99.28
735	120	0.20	56,503	91.89	780	39	0.06	59,866	97.36	825	12	0.02	61,058	99.30
736	108	0.18	56,611	92.07	781	38	0.06	59,904	97.42	826	17	0.03	61,075	99.33
737	126	0.20	56,737	92.27	782	39	0.06	59,943	97.49	827	14	0.02	61,089	99.35
738	94	0.15	56,831	92.42	783	40	0.07	59,983	97.55	828	15	0.02	61,104	99.37
739	106	0.17	56,937	92.60	784	35	0.06	60,018	97.61	829	14	0.02	61,118	99.40
740	96	0.16	57,033	92.75	785	38	0.06	60,056	97.67	830	16	0.03	61,134	99.42
741	109	0.18	57,142	92.93	786	36	0.06	60,092	97.73	831	12	0.02	61,146	99.44
742	97	0.16	57,239	93.09	787	31	0.05	60,123	97.78	832	9	0.01	61,155	99.46
743	98	0.16	57,337	93.25	788	31	0.05	60,154	97.83	833	8	0.01	61,163	99.47
744	72	0.12	57,409	93.36	789	34	0.06	60,188	97.88	834	10	0.02	61,173	99.49
745	86	0.14	57,495	93.50	790	38	0.06	60,226	97.95	835	7	0.01	61,180	99.50
746	91	0.15	57,586	93.65	791	33	0.05	60,259	98.00	836	12	0.02	61,192	99.52
747	80	0.13	57,666	93.78	792	33	0.05	60,292	98.05	837	16	0.03	61,208	99.54
748	100	0.16	57,766	93.95	793	29	0.05	60,321	98.10	838	3	0.00	61,211	99.55
749	96	0.16	57,862	94.10	794	28	0.05	60,349	98.15	839	8	0.01	61,219	99.56

**Table 29. Grade 8 Cumulative Frequency Distribution of Scale Scores (Continued)**

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
840	11	0.02	61,230	99.58	886	4	0.01	61,437	99.92
841	10	0.02	61,240	99.60	887	1	0.00	61,438	99.92
842	9	0.01	61,249	99.61	888	4	0.01	61,442	99.92
843	6	0.01	61,255	99.62	890	3	0.00	61,445	99.93
844	10	0.02	61,265	99.64	891	2	0.00	61,447	99.93
845	7	0.01	61,272	99.65	892	1	0.00	61,448	99.93
846	7	0.01	61,279	99.66	893	3	0.00	61,451	99.94
847	9	0.01	61,288	99.67	894	1	0.00	61,452	99.94
848	8	0.01	61,296	99.69	895	2	0.00	61,454	99.94
849	9	0.01	61,305	99.70	896	3	0.00	61,457	99.95
850	3	0.00	61,308	99.71	899	2	0.00	61,459	99.95
851	7	0.01	61,315	99.72	900	30	0.05	61,489	100.00
852	7	0.01	61,322	99.73					
853	5	0.01	61,327	99.74					
854	11	0.02	61,338	99.75					
855	3	0.00	61,341	99.76					
856	6	0.01	61,347	99.77					
857	2	0.00	61,349	99.77					
858	7	0.01	61,356	99.78					
859	7	0.01	61,363	99.80					
860	6	0.01	61,369	99.80					
861	6	0.01	61,375	99.81					
862	5	0.01	61,380	99.82					
863	2	0.00	61,382	99.83					
864	3	0.00	61,385	99.83					
865	1	0.00	61,386	99.83					
866	3	0.00	61,389	99.84					
867	2	0.00	61,391	99.84					
868	2	0.00	61,393	99.84					
869	7	0.01	61,400	99.86					
870	4	0.01	61,404	99.86					
871	4	0.01	61,408	99.87					
872	2	0.00	61,410	99.87					
873	3	0.00	61,413	99.88					
874	2	0.00	61,415	99.88					
875	1	0.00	61,416	99.88					
877	4	0.01	61,420	99.89					
878	2	0.00	61,422	99.89					
879	2	0.00	61,424	99.89					
880	1	0.00	61,425	99.90					
881	1	0.00	61,426	99.90					
882	1	0.00	61,427	99.90					
883	2	0.00	61,429	99.90					
884	3	0.00	61,432	99.91					
885	1	0.00	61,433	99.91					



**Table 30. Scale Score Performance Summary**

<b>Content Area</b>	<b>Grade</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>
Social Studies	4	64,130	597	108	606
Social Studies	7	62,755	598	107	605
Science	5	64,383	599	105	608
Science	8	61,489	598	106	607

**Table 31. Performance Level Distribution**

<b>Content Area</b>	<b>Grade</b>	<b>Limited Command</b>	<b>Moderate Command</b>	<b>Strong Command</b>	<b>Distinguished Command</b>
Social Studies	4	32.2%	50.8%	15.2%	1.8%
	7	45.0%	38.4%	12.5%	4.1%
Science	5	28.3%	38.1%	30.2%	3.5%
	8	31.5%	36.0%	30.1%	2.4%

\*Percentages may not sum to 100 due to rounding.

**Table 32. Scale Score Performance Summary by Content Standard**

Content Area	Grade	Content Standard											
		1			2			3			4		
		Mean	SD	Mdn*	Mean	SD	Mdn*	Mean	SD	Mdn*	Mean	SD	Mdn*
Social Studies	4	595	123.5	604	595	123.1	607	588	136.7	607	593	123.6	605
Social Studies	7	594	121.7	606	597	120.5	606	594	131.1	606	592	124.7	605
Science	5	597	120.1	606	601	113.3	608	601	114.1	606	598	113.9	608
Science	8	596	116.7	606	595	119.0	606	598	117.3	606	598	118.7	608

\*Mdn = median

**Table 33. Scale Score Performance Summary by Item Type**

Content Area	Grade	Selected-Response		Constructed-Response	
		Mean	SD	Mean	SD
Social Studies	4	596	117.5	595	116.0
	7	597	113.2	596	120.4
Science	5	602	111.3	597	112.2
	8	599	111.6	595	113.5

**Table 34. Grade 4 Percent Correct Performance Summary by GLE**

<b>Content Standard</b>	<b>GLE</b>	<b>Mean</b>	<b>SD</b>	<b>Average Percent Correct</b>
History	1	3.5	1.9	35.2%
	2	3.8	2.0	42.3%
Geography	1	5.0	1.9	49.8%
	2	3.9	2.1	43.4%
Economics	1	3.1	1.8	39.1%
	2	3.2	1.8	40.1%
Civics	1	4.1	1.8	45.2%
	2	2.7	1.7	30.3%

**Table 35. Grade 5 Percent Correct Performance Summary by GLE**

<b>Content Standard</b>	<b>GLE</b>	<b>Mean</b>	<b>SD</b>	<b>Average Percent Correct</b>
Physical Science	1	8.7	3.6	43.5%
Life Science	1	9.0	2.7	69.4%
	2	8.9	3.4	52.5%
Earth Systems Science	1	6.4	2.1	63.8%
	2	5.3	2.2	48.5%
	3	5.5	2.0	61.1%

**Table 36. Grade 7 Percent Correct Performance Summary by GLE**

<b>Content Standard</b>	<b>GLE</b>	<b>Mean</b>	<b>SD</b>	<b>Average Percent Correct</b>
History	1	3.4	1.8	42.8%
	2	4.9	2.4	40.7%
Geography	1	3.5	1.6	44.0%
	2	4.6	1.9	46.1%
Economics	1	4.2	2.1	52.7%
	2	3.6	1.8	45.1%
Civics	1	3.6	1.8	44.5%
	2	3.3	2.0	36.3%

**Table 37. Grade 8 Percent Correct Performance Summary by GLE**

<b>Content Standard</b>	<b>GLE</b>	<b>Mean</b>	<b>SD</b>	<b>Average Percent Correct</b>
Physical Science	1	3.4	1.8	49.2%
	2	3.6	1.6	52.1%
	3	3.4	1.7	48.5%
	4	3.0	1.7	42.6%
Life Science	1	5.6	2.3	50.8%
	2	4.8	2.8	36.9%
Earth Systems Science	1	3.3	1.3	46.9%
	2	3.4	1.8	56.8%
	3	3.6	1.8	51.4%
	4	2.9	1.8	41.4%



**Table 38. Grade 4 Selected-Response Classical Statistics**

Item	% Omit	p-value	Item- Total Corr.
1	0.04	0.44	0.43
2	0.06	0.71	0.29
3	0.07	0.88	0.33
4	0.51	0.93	0.29
5	0.88	0.53	0.39
6	2.03	0.47	0.36
7	0.14	0.41	0.32
8	1.13	0.54	0.35
9	0.84	0.26	0.23
10	0.07	0.35	0.43
11	0.21	0.58	0.33
12	0.70	0.37	0.52
13	1.59	0.50	0.41
14	0.23	0.48	0.49
15	0.15	0.52	0.31
16	0.06	0.80	0.37
17	0.57	0.44	0.37
18	0.39	0.37	0.34
19	0.05	0.66	0.36
20	0.24	0.61	0.39
21	0.53	0.31	0.21
22	0.21	0.66	0.39
23	0.06	0.65	0.16
24	0.39	0.36	0.33
25	2.02	0.40	0.32
26	0.48	0.29	0.06
27	0.65	0.57	0.18
28	0.06	0.25	0.25
29	0.43	0.30	0.50
30	0.51	0.47	0.49
31	0.42	0.58	0.49
32	0.16	0.68	0.44
33	0.22	0.33	0.11
34	0.15	0.56	0.31
35	0.15	0.30	0.41
36	0.10	0.11	0.13

**Table 39. Grade 4 Constructed-Response Classical Statistics**

Item	Omit %	%0	%1	%2	%3	p-value	Item- Total Corr.
1	0.47	46.57	34.94	14.63	3.39	0.25	0.60
2	1.54	62.81	26.07	8.58	1.00	0.15	0.52
3	2.32	25.94	38.17	23.01	10.57	0.39	0.60
4	0.96	19.24	61.30	9.42	9.08	0.36	0.60
5	0.23	8.15	15.08	59.84	16.70	0.62	0.48
6	0.35	17.75	38.28	35.81	7.82	0.44	0.60
7	1.87	26.57	28.43	32.91	10.22	0.42	0.69
8	1.52	48.99	21.50	21.73	6.26	0.28	0.56
9	0.84	28.18	50.34	17.61	3.04	0.32	0.61
10	0.84	54.47	32.48	9.88	2.33	0.20	0.49
11	0.89	45.30	37.14	15.23	1.44	0.24	0.47
12	1.61	51.33	25.94	17.17	3.95	0.24	0.62

**Table 40. Grade 5 Selected-Response Classical Statistics**

Item	% Omit	p-value	Item- Total Corr.
1	0.24	0.88	0.34
2	0.44	0.11	0.65
3	0.48	0.09	0.79
4	0.42	0.04	0.80
5	0.27	0.18	0.57
6	0.43	0.36	0.79
7	0.43	0.05	0.87
8	0.28	0.05	0.74
9	0.42	0.06	0.77
10	0.37	0.09	0.56
11	0.39	0.29	0.49
12	0.44	0.12	0.76
13	0.35	0.07	0.59
14	0.47	0.43	0.54
15	0.36	0.04	0.61
16	0.30	0.02	0.92
17	0.46	0.06	0.45
18	0.40	0.19	0.43
19	0.46	0.13	0.68
20	0.43	0.13	0.52
21	0.28	0.58	0.88
22	0.37	0.22	0.83
23	0.18	0.36	0.40
24	0.43	0.23	0.92
25	0.35	0.22	0.66

Item	% Omit	p-value	Item- Total Corr.
26	0.44	0.21	0.85
27	0.29	0.20	0.50
28	0.21	0.14	0.42
29	0.28	0.14	0.69
30	0.42	0.14	0.49
31	0.38	0.07	0.87
32	0.51	0.22	0.73
33	0.25	0.13	0.43
34	0.47	0.44	0.79
35	0.40	0.02	0.23
36	0.37	0.09	0.73
37	0.44	0.07	0.68
38	0.51	0.89	0.75
39	0.27	0.02	0.90
40	0.31	0.03	0.77
41	0.30	0.17	0.67
42	0.26	0.07	0.83
43	0.32	0.12	0.35

**Table 41. Grade 5 Constructed-Response Classical Statistics**

Item	Max Points	Omit %	%0	%1	%2	%3	p-value	Item-Total Corr.
1	3	0.47	33.64	41.26	21.65	2.98	0.31	0.62
2	3	0.57	30.61	28.88	30.91	9.04	0.39	0.56
3	2	0.20	27.21	56.54	16.05	.	0.44	0.54
4	2	0.49	49.11	46.58	3.82	.	0.27	0.53
5	2	0.20	58.27	38.38	3.16	.	0.22	0.46
6	2	0.76	20.59	50.28	28.37	.	0.54	0.54
7	2	0.77	19.18	31.34	48.71	.	0.64	0.25
8	2	0.41	22.78	49.86	26.95	.	0.52	0.46
9	2	0.51	34.37	32.46	32.67	.	0.49	0.54
10	2	0.34	5.93	63.22	30.50	.	0.62	0.53
11	2	0.34	27.84	44.61	27.21	.	0.50	0.57
12	2	0.37	16.62	33.53	49.47	.	0.66	0.62
13	2	0.45	37.19	39.90	22.46	.	0.42	0.48
14	2	0.26	50.74	42.80	6.21	.	0.28	0.54
15	2	1.02	23.56	38.52	36.90	.	0.56	0.57
16	3	0.47	35.57	41.06	12.39	10.51	0.32	0.61
17	2	1.31	80.25	15.76	2.68	.	0.11	0.43

**Table 42. Grade 7 Selected-Response Classical Statistics**

Item	% Omit	p-value	Item- Total Corr.
1	0.37	0.29	0.60
2	0.37	1.54	0.53
3	0.32	0.09	0.53
4	0.37	0.17	0.45
5	0.33	0.22	0.44
6	0.53	0.07	0.62
7	0.21	0.06	0.96
8	0.34	0.16	0.44
9	0.44	0.30	0.78
10	0.49	0.07	0.60
11	0.33	0.16	0.69
12	0.40	0.24	0.55
13	0.11	0.28	0.24
14	0.41	0.06	0.46
15	0.46	0.12	0.80
16	0.39	0.37	0.48
17	0.38	0.11	0.56
18	0.42	0.09	0.69
19	0.34	0.18	0.53
20	0.34	0.36	0.64
21	0.50	0.19	0.64
22	0.41	0.06	0.64
23	0.24	0.21	0.55
24	0.35	0.31	0.35
25	0.30	0.43	0.38
26	0.27	0.40	0.48
27	0.31	0.11	0.31
28	0.51	0.13	0.51
29	0.27	0.24	0.27
30	0.46	0.70	0.22
31	0.29	0.18	0.62
32	0.34	0.17	0.45
33	0.34	0.06	0.37
34	0.34	0.13	0.69
35	0.36	0.13	0.39

**Table 43. Grade 7 Constructed-Response Classical Statistics**

Item	Omit %	%0	%1	%2	%3	p-value	Item- Total Corr.
1	0.52	14.13	18.95	35.74	30.67	0.61	0.59
2	0.80	24.12	46.16	22.01	6.91	0.37	0.53
3	0.80	15.41	42.77	34.71	6.30	0.44	0.65
4	0.92	40.10	41.24	12.08	5.65	0.27	0.66
5	0.72	25.89	24.13	35.94	13.32	0.45	0.62
6	0.58	18.80	54.54	13.72	12.35	0.40	0.64
7	0.68	38.76	47.41	11.72	1.42	0.25	0.57
8	0.89	29.02	50.38	15.53	4.18	0.31	0.66
9	0.48	42.21	43.63	12.27	1.41	0.24	0.59
10	0.95	23.13	51.85	19.01	5.05	0.35	0.60
11	0.82	46.22	39.91	11.19	1.86	0.23	0.64
12	0.82	32.14	52.06	12.53	2.45	0.28	0.62

**Table 44. Grade 8 Selected-Response Classical Statistics**

Item	% Omit	p-value	Item- Total Corr.
1	0.31	0.10	0.54
2	0.47	0.12	0.71
3	0.45	0.20	0.53
4	0.39	0.14	0.59
5	0.10	0.21	0.22
6	0.28	0.51	0.63
7	0.40	0.09	0.19
8	0.35	0.05	0.65
9	0.26	0.14	0.33
10	0.52	0.36	0.33
11	0.32	0.07	0.83
12	0.43	0.19	0.60
13	0.48	0.18	0.43
14	0.22	0.28	0.38
15	0.32	0.11	0.58
16	0.27	0.17	0.58
17	0.30	0.14	0.55
18	0.38	0.08	0.78
19	0.40	0.05	0.80
20	0.45	0.26	0.52
21	0.24	0.15	0.36
22	0.33	0.17	0.48
23	0.37	0.28	0.74
24	0.40	0.12	0.61
25	0.28	0.05	0.79

Item	% Omit	p-value	Item- Total Corr.
26	0.19	0.21	0.47
27	0.38	0.08	0.44
28	0.49	0.31	0.52
29	0.41	0.51	0.26
30	0.41	1.24	0.26
31	0.33	0.07	0.90
32	0.39	0.08	0.69
33	0.38	0.13	0.57
34	0.51	0.17	0.58
35	0.26	0.39	0.33
36	0.35	0.77	0.34
37	0.35	0.35	0.85
38	0.29	0.36	0.76
39	0.44	0.12	0.75
40	0.43	0.10	0.58
41	0.48	0.08	0.77
42	0.30	0.25	0.62

**Table 45. Grade 8 Constructed-Response Classical Statistics**

Item	Max Points	Omit %	%0	%1	%2	%3	p-value	Item-Total Corr.
1	2	0.82	69.02	7.24	22.91		0.27	0.53
2	2	0.99	65.36	25.22	8.44		0.21	0.51
3	2	0.96	55.32	38.59	5.13		0.24	0.43
4	3	0.83	24.20	24.76	25.48	24.73	0.50	0.68
5	2	1.99	46.98	18.65	32.39		0.42	0.68
6	3	0.78	34.90	40.69	19.44	4.19	0.31	0.62
7	3	1.49	66.93	10.86	13.47	7.25	0.20	0.61
8	2	0.86	38.70	41.46	18.98		0.40	0.60
9	2	0.63	18.55	52.07	28.75		0.55	0.54
10	2	0.40	41.39	37.80	20.41		0.39	0.57
11	2	0.87	54.13	26.20	18.81		0.32	0.47
12	2	0.85	25.76	37.72	35.66		0.55	0.55
13	2	0.99	48.20	34.75	16.05		0.33	0.62
14	2	1.53	82.53	13.54	2.41		0.09	0.38
15	2	0.00	40.95	50.30	8.75		0.34	0.54
16	2	0.42	13.10	62.29	24.19		0.55	0.49
17	2	0.29	15.63	44.59	39.49		0.62	0.46



**Table 46. Correlations Between Content Standards**

<b>Grade</b>	<b>Content Standard</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Full Test</b>
4	1	0.73	0.66	0.72	0.89
	2		0.66	0.71	0.90
	3			0.65	0.82
	4				0.87
5	1	0.76	0.76	0.84	0.89
	2		0.81	0.87	0.94
	3			0.88	0.93
	4				0.94
7	1	0.74	0.70	0.75	0.90
	2		0.70	0.73	0.88
	3			0.70	0.87
	4				0.89
8	1	0.77	0.80	0.86	0.93
	2		0.77	0.84	0.91
	3			0.84	0.93
	4				0.92

**Table 47. Number of Items Field Tested**

	<b>Grade 4</b>	<b>Grade 7</b>	<b>Grade 5</b>	<b>Grade 8</b>
Number of Field Test Forms	9	13	15	18
Number of Items Field Tested	89	102	143	167

**Table 48. Data Review Outcomes**

	<b>Grade 4</b>	<b>Grade 7</b>	<b>Grade 5</b>	<b>Grade 8</b>
Number of Items Field Tested	89	102	143	167
Number of Items Flagged and Reviewed	26	33	33	60
Data Review Outcome				
• Rejected	6	5	8	13
• Revise and Re-Field Test	4	3	0	0