

APPENDIX L

MODE ADJUSTMENT LOOKUP TABLES

Table L-1. Scale Score / Adjusted Score Lookup—ELA Grade 3

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-3.17347	440	443	3
1	-3.12239	441	443	2
2	-3.07131	442	443	1
3	-3.02023	443	444	1
4	-2.96915	444	444	0
5	-2.91806	445	444	-1
6	-2.86698	446	444	-2
7	-2.60629	451	446	-5
8	-2.3826	455	450	-5
9	-2.18369	459	455	-4
10	-2.00265	462	458	-4
11	-1.83485	465	461	-4
12	-1.67682	468	465	-3
13	-1.52584	471	468	-3
14	-1.3798	474	471	-3
15	-1.23707	476	473	-3
16	-1.09647	479	476	-3
17	-0.95719	482	479	-3
18	-0.81871	484	481	-3
19	-0.68079	487	484	-3
20	-0.54333	490	487	-3
21	-0.40632	492	489	-3
22	-0.26973	495	492	-3
23	-0.13344	497	494	-3
24	0.00281	499	496	-3
25	0.13945	502	499	-3
26	0.27714	505	502	-3
27	0.41671	508	505	-3
28	0.55922	510	507	-3
29	0.70591	513	510	-3
30	0.85826	516	512	-4
31	1.01802	519	515	-4
32	1.18717	522	518	-4
33	1.36809	526	522	-4
34	1.56367	529	525	-4
35	1.77749	533	529	-4
36	2.01403	538	534	-4
37	2.27861	543	540	-3
38	2.57687	548	548	0
39	2.91486	555	556	1
40	3.19626	560	558	-2
41	3.19626	560	558	-2
42	3.19626	560	558	-2
43	3.19626	560	558	-2
44	3.19626	560	558	-2

Table L-2. Scale Score / Adjusted Score Lookup—ELA Grade 4

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-3.15303	440	441	1
1	-3.11913	441	441	0
2	-3.08523	441	441	0
3	-3.05133	442	441	-1
4	-3.01743	443	441	-2
5	-2.98353	443	441	-2
6	-2.66098	449	443	-6
7	-2.41283	454	446	-8
8	-2.20742	458	450	-8
9	-2.02943	461	454	-7
10	-1.87032	464	457	-7
11	-1.72482	467	461	-6
12	-1.58944	469	463	-6
13	-1.46173	472	466	-6
14	-1.33986	474	468	-6
15	-1.22243	476	471	-5
16	-1.10831	479	474	-5
17	-0.99656	481	476	-5
18	-0.88641	483	478	-5
19	-0.77718	485	480	-5
20	-0.66827	487	482	-5
21	-0.55913	489	484	-5
22	-0.44926	491	487	-4
23	-0.33819	493	489	-4
24	-0.22543	495	491	-4
25	-0.1105	497	493	-4
26	0.00712	499	495	-4
27	0.12800	502	499	-3
28	0.25281	504	501	-3
29	0.38229	507	505	-2
30	0.51732	509	507	-2
31	0.65892	512	511	-1
32	0.80825	515	514	-1
33	0.96657	518	518	0
34	1.13524	521	522	1
35	1.31571	524	525	1
36	1.50961	528	531	3
37	1.71915	532	536	4
38	1.94781	536	541	5
39	2.20165	541	548	7
40	2.49117	546	553	7
41	2.83491	553	559	6
42	3.21452	560	560	0
43	3.21452	560	560	0
44	3.21452	560	560	0

Table L-3. Scale Score / Adjusted Score Lookup—ELA Grade 5

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-3.35984	440	441	1
1	-3.32029	441	441	0
2	-3.28073	441	441	0
3	-3.24118	442	441	-1
4	-3.20162	443	441	-2
5	-3.16207	443	441	-2
6	-3.12251	444	441	-3
7	-2.83029	449	442	-7
8	-2.59379	453	443	-10
9	-2.39319	457	446	-11
10	-2.21703	460	449	-11
11	-2.05814	463	453	-10
12	-1.91177	466	457	-9
13	-1.77462	468	459	-9
14	-1.64431	470	462	-8
15	-1.51909	472	464	-8
16	-1.39762	475	468	-7
17	-1.27888	477	470	-7
18	-1.16206	479	473	-6
19	-1.04654	481	475	-6
20	-0.93183	483	477	-6
21	-0.81754	485	479	-6
22	-0.70336	487	481	-6
23	-0.58907	489	483	-6
24	-0.47444	491	485	-6
25	-0.35928	493	487	-6
26	-0.24337	495	489	-6
27	-0.12644	497	491	-6
28	-0.00817	499	493	-6
29	0.11183	501	495	-6
30	0.23402	503	497	-6
31	0.35894	506	500	-6
32	0.48718	508	502	-6
33	0.61940	510	504	-6
34	0.75627	513	506	-7
35	0.89850	515	508	-7
36	1.04680	518	511	-7
37	1.20196	521	515	-6
38	1.36496	523	517	-6
39	1.53722	527	521	-6
40	1.72093	529	523	-6
41	1.91956	533	527	-6
42	2.13848	537	532	-5
43	2.38551	542	538	-4
44	2.67163	547	545	-2
45	3.01308	553	554	1
46	3.43018	560	558	-2
47	3.43018	560	558	-2
48	3.43018	560	558	-2

Table L-4. Scale Score / Adjusted Score Lookup—ELA Grade 6

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-3.17122	440	440	0
1	-3.16635	440	440	0
2	-3.16149	440	440	0
3	-3.15662	440	440	0
4	-3.15175	440	440	0
5	-3.14688	440	440	0
6	-2.86349	446	440	-6
7	-2.63214	450	441	-9
8	-2.43426	454	444	-10
9	-2.25921	457	447	-10
10	-2.10035	460	450	-10
11	-1.95327	463	453	-10
12	-1.81491	466	457	-9
13	-1.68308	468	459	-9
14	-1.55619	471	462	-9
15	-1.43306	473	464	-9
16	-1.31285	475	466	-9
17	-1.19495	478	470	-8
18	-1.07891	480	472	-8
19	-0.96441	482	474	-8
20	-0.85117	484	476	-8
21	-0.73892	486	478	-8
22	-0.62740	488	480	-8
23	-0.51630	490	482	-8
24	-0.40526	493	485	-8
25	-0.29392	495	488	-7
26	-0.18184	497	490	-7
27	-0.06861	499	492	-7
28	0.04622	501	494	-7
29	0.16305	503	496	-7
30	0.28228	506	499	-7
31	0.40423	508	502	-6
32	0.52922	510	504	-6
33	0.65756	513	508	-5
34	0.78959	515	510	-5
35	0.92575	518	513	-5
36	1.06661	520	516	-4
37	1.21295	523	519	-4
38	1.36577	526	523	-3
39	1.52631	529	526	-3
40	1.69603	532	530	-2
41	1.87663	536	535	-1
42	2.07004	540	540	0
43	2.27840	543	544	1
44	2.50416	548	550	2
45	2.75044	552	555	3
46	3.02169	558	559	1
47	3.14989	560	559	-1
48	3.14989	560	559	-1
49	3.14989	560	559	-1
50	3.14989	560	559	-1
51	3.14989	560	559	-1

Table L-5. Scale Score / Adjusted Score Lookup—ELA Grade 7

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-3.13078	440	441	1
1	-3.09749	441	441	0
2	-3.06420	441	441	0
3	-3.03090	442	441	-1
4	-2.99761	443	441	-2
5	-2.96432	443	441	-2
6	-2.93103	444	441	-3
7	-2.67122	449	442	-7
8	-2.45779	453	444	-9
9	-2.27388	456	446	-10
10	-2.11005	459	449	-10
11	-1.96065	462	452	-10
12	-1.82205	465	456	-9
13	-1.69184	467	458	-9
14	-1.56832	469	460	-9
15	-1.45027	472	463	-9
16	-1.33673	474	465	-9
17	-1.22693	476	468	-8
18	-1.12024	478	469	-9
19	-1.01610	480	471	-9
20	-0.91400	482	473	-9
21	-0.81351	484	475	-9
22	-0.71420	486	477	-9
23	-0.61567	488	479	-9
24	-0.51753	490	481	-9
25	-0.41938	492	483	-9
26	-0.32083	494	485	-9
27	-0.22147	496	487	-9
28	-0.12088	497	487	-10
29	-0.01862	499	489	-10
30	0.08573	501	491	-10
31	0.19260	503	493	-10
32	0.30243	506	496	-10
33	0.41563	508	498	-10
34	0.53266	510	499	-11
35	0.65400	512	501	-11
36	0.78021	515	504	-11
37	0.91193	517	506	-11
38	1.04995	520	509	-11
39	1.19524	523	512	-11
40	1.34908	526	515	-11
41	1.51317	529	518	-11
42	1.68980	532	522	-10
43	1.88205	536	526	-10
44	2.09360	540	531	-9
45	2.32842	544	536	-8
46	2.59081	549	544	-5
47	2.88795	555	553	-2
48	3.15263	560	556	-4
49	3.15263	560	556	-4
50	3.15263	560	556	-4
51	3.15263	560	556	-4

Table L-6. Scale Score / Adjusted Score Lookup—ELA Grade 8

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-2.96385	440	441	1
1	-2.94532	440	441	1
2	-2.92679	441	441	0
3	-2.90826	441	441	0
4	-2.88973	441	441	0
5	-2.87120	442	441	-1
6	-2.85267	442	441	-1
7	-2.83414	443	441	-2
8	-2.59979	447	441	-6
9	-2.39991	451	443	-8
10	-2.22346	455	445	-10
11	-2.06369	458	447	-11
12	-1.91621	461	450	-11
13	-1.77807	464	454	-10
14	-1.64723	466	456	-10
15	-1.52223	469	459	-10
16	-1.40200	471	461	-10
17	-1.28575	473	463	-10
18	-1.17283	476	467	-9
19	-1.06270	478	469	-9
20	-0.95490	480	471	-9
21	-0.84901	482	473	-9
22	-0.74465	484	474	-10
23	-0.64144	486	476	-10
24	-0.53903	488	478	-10
25	-0.43711	490	480	-10
26	-0.33534	492	482	-10
27	-0.23342	494	484	-10
28	-0.13104	496	486	-10
29	-0.02789	498	488	-10
30	0.07636	501	491	-10
31	0.18204	503	493	-10
32	0.28955	505	494	-11
33	0.39932	507	496	-11
34	0.51187	509	498	-11
35	0.62779	511	500	-11
36	0.74783	514	503	-11
37	0.87284	516	505	-11
38	1.00388	519	508	-11
39	1.14217	522	511	-11
40	1.28909	525	514	-11
41	1.44622	528	517	-11
42	1.61530	531	520	-11
43	1.79835	535	524	-11
44	1.99783	539	528	-11
45	2.21696	543	533	-10
46	2.45977	548	540	-8
47	2.73158	553	548	-5
48	3.04321	560	554	-6
49	3.06624	560	554	-6
50	3.06624	560	554	-6
51	3.06624	560	554	-6

Table L-7. Scale Score / Adjusted Score Lookup—ELA Grade 10

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-3.15670	440	442	2
1	-3.15049	440	442	2
2	-3.14427	440	442	2
3	-3.13805	440	442	2
4	-3.13184	441	443	2
5	-3.12562	441	443	2
6	-3.11940	441	443	2
7	-3.11319	441	443	2
8	-3.10697	441	443	2
9	-2.93984	445	444	-1
10	-2.79338	448	447	-1
11	-2.66199	450	449	-1
12	-2.54199	453	452	-1
13	-2.43082	455	455	0
14	-2.32666	457	457	0
15	-2.22817	459	459	0
16	-2.13428	461	461	0
17	-2.04419	463	463	0
18	-1.95722	465	464	-1
19	-1.87279	467	466	-1
20	-1.79040	469	468	-1
21	-1.70962	470	469	-1
22	-1.63006	472	471	-1
23	-1.55133	474	472	-2
24	-1.47310	475	473	-2
25	-1.39504	477	475	-2
26	-1.31684	479	477	-2
27	-1.23819	480	478	-2
28	-1.15879	482	480	-2
29	-1.07833	484	481	-3
30	-0.99650	485	482	-3
31	-0.91297	487	484	-3
32	-0.82740	489	486	-3
33	-0.73939	491	488	-3
34	-0.64851	493	490	-3
35	-0.55425	495	492	-3
36	-0.45601	497	494	-3
37	-0.35309	499	496	-3
38	-0.24459	501	498	-3
39	-0.12942	504	502	-2
40	-0.00614	506	504	-2
41	0.12706	509	507	-2
42	0.27260	512	511	-1
43	0.43373	515	514	-1
44	0.61495	519	519	0
45	0.82281	524	526	2
46	1.06746	529	532	3
47	1.36488	535	540	5
48	1.73666	543	551	8
49	2.20322	553	559	6
50	2.55902	560	560	0
51	2.55902	560	560	0

Table L-8. Scale Score / Adjusted Score Lookup—Mathematics Grade 3

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-2.78190	440	440	0
1	-2.75304	441	440	-1
2	-2.72417	441	440	-1
3	-2.69531	442	440	-2
4	-2.66644	442	440	-2
5	-2.63758	443	440	-3
6	-2.34825	449	441	-8
7	-2.13051	454	443	-11
8	-1.95322	458	446	-12
9	-1.80179	461	449	-12
10	-1.66819	464	453	-11
11	-1.54755	466	456	-10
12	-1.43666	469	460	-9
13	-1.33331	471	463	-8
14	-1.23586	473	466	-7
15	-1.14312	475	469	-6
16	-1.05414	477	471	-6
17	-0.96818	479	474	-5
18	-0.88460	481	477	-4
19	-0.80290	482	478	-4
20	-0.72265	484	480	-4
21	-0.64344	486	483	-3
22	-0.56494	487	484	-3
23	-0.48684	489	486	-3
24	-0.40883	491	488	-3
25	-0.33065	492	490	-2
26	-0.25202	494	492	-2
27	-0.17268	496	494	-2
28	-0.09237	497	495	-2
29	-0.01081	499	497	-2
30	0.07228	501	500	-1
31	0.15719	503	502	-1
32	0.24426	505	504	-1
33	0.33383	507	506	-1
34	0.42631	509	509	0
35	0.52216	511	511	0
36	0.62194	513	513	0
37	0.72633	515	515	0
38	0.83620	517	517	0
39	0.95268	520	520	0
40	1.07731	522	522	0
41	1.21229	525	525	0
42	1.36083	528	528	0
43	1.52794	532	532	0
44	1.72205	536	536	0
45	1.95904	541	541	0
46	2.27502	548	548	0
47	2.78864	559	557	-2
48	2.83684	560	558	-2

Table L-9. Scale Score / Adjusted Score Lookup—Mathematics Grade 4

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-2.81153	440	441	1
1	-2.79318	440	441	1
2	-2.77484	441	441	0
3	-2.75649	441	441	0
4	-2.73814	442	441	-1
5	-2.71979	442	441	-1
6	-2.70145	442	441	-1
7	-2.68310	443	441	-2
8	-2.46903	447	441	-6
9	-2.28878	451	442	-9
10	-2.13103	454	444	-10
11	-1.98932	457	447	-10
12	-1.85960	460	450	-10
13	-1.73923	462	452	-10
14	-1.62632	465	456	-9
15	-1.51957	467	459	-8
16	-1.41797	469	462	-7
17	-1.32079	471	465	-6
18	-1.22742	473	467	-6
19	-1.13742	475	470	-5
20	-1.05037	477	472	-5
21	-0.96596	479	475	-4
22	-0.88387	480	476	-4
23	-0.80385	482	479	-3
24	-0.72563	484	481	-3
25	-0.64898	485	482	-3
26	-0.57367	487	484	-3
27	-0.49946	488	486	-2
28	-0.42613	490	488	-2
29	-0.35344	491	489	-2
30	-0.28116	493	491	-2
31	-0.20903	494	492	-2
32	-0.13680	496	495	-1
33	-0.06420	498	497	-1
34	0.00905	499	498	-1
35	0.08327	501	500	-1
36	0.15879	502	502	0
37	0.23598	504	504	0
38	0.31524	505	505	0
39	0.39704	507	507	0
40	0.48191	509	509	0
41	0.57047	511	512	1
42	0.66347	513	514	1
43	0.76179	515	516	1
44	0.86657	517	519	2
45	0.97920	519	521	2
46	1.10153	522	525	3
47	1.23603	525	528	3
48	1.38615	528	532	4
49	1.55708	531	536	5
50	1.75731	536	542	6
51	2.00290	541	549	8
52	2.33107	548	556	8
53	2.86678	559	560	1
54	2.91956	560	560	0

Table L-10. Scale Score / Adjusted Score Lookup—Mathematics Grade 5

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-3.12644	440	440	0
1	-3.11610	440	440	0
2	-3.10576	440	440	0
3	-3.09542	441	440	-1
4	-3.08508	441	440	-1
5	-3.07474	441	440	-1
6	-2.62632	450	440	-10
7	-2.33390	455	443	-12
8	-2.11445	459	446	-13
9	-1.93649	463	452	-11
10	-1.78490	466	456	-10
11	-1.65131	468	459	-9
12	-1.53063	470	462	-8
13	-1.41956	472	465	-7
14	-1.31579	474	468	-6
15	-1.21773	476	470	-6
16	-1.12417	478	473	-5
17	-1.03422	480	476	-4
18	-0.94720	481	477	-4
19	-0.86258	483	479	-4
20	-0.77993	485	482	-3
21	-0.69895	486	483	-3
22	-0.61936	488	485	-3
23	-0.54096	489	486	-3
24	-0.46357	491	489	-2
25	-0.38705	492	490	-2
26	-0.31128	494	492	-2
27	-0.23613	495	493	-2
28	-0.16151	496	494	-2
29	-0.08730	498	497	-1
30	-0.01339	499	498	-1
31	0.06032	501	500	-1
32	0.13397	502	501	-1
33	0.20770	503	503	0
34	0.28165	505	505	0
35	0.35601	506	506	0
36	0.43096	508	508	0
37	0.50674	509	509	0
38	0.58362	511	512	1
39	0.66191	512	513	1
40	0.74202	514	515	1
41	0.82442	515	516	1
42	0.90971	517	518	1
43	0.99864	519	520	1
44	1.09219	520	521	1
45	1.19163	522	523	1
46	1.29873	524	525	1
47	1.41593	526	528	2
48	1.54687	529	531	2
49	1.69722	532	534	2
50	1.87657	535	538	3
51	2.10301	540	543	3
52	2.41765	546	550	4
53	2.95569	556	557	1
54	3.17631	560	558	-2

Table L-11. Scale Score / Adjusted Score Lookup—Mathematics Grade 6

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-3.02788	440	441	1
1	-2.99153	441	441	0
2	-2.95517	441	441	0
3	-2.91882	442	441	-1
4	-2.88247	443	441	-2
5	-2.84611	444	441	-3
6	-2.49531	451	443	-8
7	-2.24248	456	447	-9
8	-2.04206	460	452	-8
9	-1.87415	463	456	-7
10	-1.72823	466	460	-6
11	-1.59804	468	463	-5
12	-1.47959	471	468	-3
13	-1.37013	473	470	-3
14	-1.26774	475	473	-2
15	-1.17099	477	475	-2
16	-1.07882	479	478	-1
17	-0.99042	480	479	-1
18	-0.90518	482	482	0
19	-0.82258	484	484	0
20	-0.74222	485	485	0
21	-0.66378	487	487	0
22	-0.58697	489	490	1
23	-0.51154	490	491	1
24	-0.43729	491	492	1
25	-0.36401	493	494	1
26	-0.29151	494	496	2
27	-0.21962	496	498	2
28	-0.14817	497	499	2
29	-0.07700	499	501	2
30	-0.00594	500	502	2
31	0.06516	501	504	3
32	0.13648	503	506	3
33	0.20816	504	507	3
34	0.28039	506	509	3
35	0.35336	507	510	3
36	0.42727	509	513	4
37	0.50238	510	514	4
38	0.57894	512	516	4
39	0.65731	513	517	4
40	0.73787	515	519	4
41	0.82110	516	520	4
42	0.90761	518	522	4
43	0.99815	520	525	5
44	1.09372	522	527	5
45	1.19559	524	529	5
46	1.30558	526	532	6
47	1.42625	529	535	6
48	1.56150	531	537	6
49	1.71767	534	541	7
50	1.90586	538	546	8
51	2.14811	543	551	8
52	2.49690	550	557	7
53	3.01131	560	560	0
54	3.01131	560	560	0

Table L-12. Scale Score / Adjusted Score Lookup—Mathematics Grade 7

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-2.85928	440	441	1
1	-2.83188	441	441	0
2	-2.80447	441	441	0
3	-2.77707	442	441	-1
4	-2.74966	442	441	-1
5	-2.72226	443	441	-2
6	-2.25463	453	443	-10
7	-1.96485	459	449	-10
8	-1.74540	463	454	-9
9	-1.56374	467	459	-8
10	-1.40595	470	463	-7
11	-1.26491	473	467	-6
12	-1.13645	476	470	-6
13	-1.01787	478	472	-6
14	-0.90726	481	476	-5
15	-0.80318	483	478	-5
16	-0.70451	485	480	-5
17	-0.61037	487	482	-5
18	-0.52007	489	484	-5
19	-0.43305	490	485	-5
20	-0.34888	492	488	-4
21	-0.26721	494	490	-4
22	-0.18776	495	491	-4
23	-0.11027	497	493	-4
24	-0.03454	499	495	-4
25	0.03964	500	496	-4
26	0.11244	502	499	-3
27	0.18404	503	500	-3
28	0.25459	505	502	-3
29	0.32424	506	503	-3
30	0.39314	508	505	-3
31	0.46142	509	506	-3
32	0.52922	510	507	-3
33	0.59669	512	510	-2
34	0.66397	513	511	-2
35	0.73124	515	513	-2
36	0.79872	516	514	-2
37	0.86666	517	515	-2
38	0.93540	519	517	-2
39	1.00533	520	518	-2
40	1.07696	522	520	-2
41	1.15089	523	521	-2
42	1.22784	525	523	-2
43	1.30866	527	526	-1
44	1.39438	528	527	-1
45	1.48625	530	529	-1
46	1.58588	532	531	-1
47	1.69545	535	534	-1
48	1.81817	537	536	-1
49	1.95912	540	540	0
50	2.12712	544	544	0
51	2.33957	548	549	1
52	2.63749	554	556	2
53	2.92159	560	559	-1
54	2.92159	560	559	-1

Table L-13. Scale Score / Adjusted Score Lookup—Mathematics Grade 8

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-2.98289	440	441	1
1	-2.93539	441	441	0
2	-2.88788	442	442	0
3	-2.84038	443	442	-1
4	-2.79287	444	442	-2
5	-2.74537	445	442	-3
6	-2.69786	446	442	-4
7	-2.37157	452	445	-7
8	-2.13693	457	451	-6
9	-1.95149	461	457	-4
10	-1.79609	464	461	-3
11	-1.66046	467	465	-2
12	-1.53854	469	468	-1
13	-1.42657	471	470	-1
14	-1.32211	474	473	-1
15	-1.2236	475	475	0
16	-1.12997	477	477	0
17	-1.04049	479	479	0
18	-0.95461	481	481	0
19	-0.87191	483	484	1
20	-0.792	484	485	1
21	-0.71453	486	487	1
22	-0.6392	487	488	1
23	-0.56568	489	490	1
24	-0.49368	490	491	1
25	-0.42292	492	492	0
26	-0.35313	493	493	0
27	-0.28406	494	494	0
28	-0.21544	496	496	0
29	-0.14704	497	497	0
30	-0.07864	499	499	0
31	-0.00999	499	499	0
32	0.05912	501	501	0
33	0.12892	503	502	-1
34	0.19965	504	503	-1
35	0.27156	506	505	-1
36	0.3449	507	506	-1
37	0.41996	509	508	-1
38	0.49708	510	509	-1
39	0.57661	512	510	-2
40	0.65898	513	511	-2
41	0.7447	515	513	-2
42	0.83437	517	514	-3
43	0.92879	519	516	-3
44	1.02895	521	518	-3
45	1.13622	523	520	-3
46	1.25247	525	521	-4
47	1.3803	528	524	-4
48	1.52356	531	526	-5
49	1.68807	534	529	-5
50	1.88346	538	533	-5
51	2.12778	543	538	-5
52	2.46263	550	546	-4
53	2.96601	560	555	-5
54	2.96601	560	555	-5

Table L-14. Scale Score / Adjusted Score Lookup—Mathematics Grade 10

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-3.12422	440	440	0
1	-3.11292	440	440	0
2	-3.10163	440	440	0
3	-3.09033	441	440	-1
4	-3.07903	441	440	-1
5	-3.06773	441	440	-1
6	-3.05643	441	440	-1
7	-2.64813	450	441	-9
8	-2.37209	456	446	-10
9	-2.16324	461	453	-8
10	-1.99422	464	457	-7
11	-1.85108	467	462	-5
12	-1.72589	469	464	-5
13	-1.61377	472	468	-4
14	-1.51154	474	471	-3
15	-1.41706	476	473	-3
16	-1.32880	478	475	-3
17	-1.24564	480	478	-2
18	-1.16677	482	480	-2
19	-1.09154	483	481	-2
20	-1.01943	485	483	-2
21	-0.95004	486	484	-2
22	-0.88300	488	486	-2
23	-0.81803	489	487	-2
24	-0.75484	491	490	-1
25	-0.69321	492	491	-1
26	-0.63291	493	492	-1
27	-0.57376	495	494	-1
28	-0.51556	496	495	-1
29	-0.45814	497	496	-1
30	-0.40134	498	497	-1
31	-0.34500	499	498	-1
32	-0.28895	501	500	-1
33	-0.23305	502	501	-1
34	-0.17714	503	502	-1
35	-0.12106	504	504	0
36	-0.06466	505	505	0
37	-0.00777	507	507	0
38	0.04979	508	508	0
39	0.10818	509	509	0
40	0.16762	510	510	0
41	0.22830	512	513	1
42	0.29045	513	514	1
43	0.35435	514	515	1
44	0.42027	516	517	1
45	0.48855	517	518	1
46	0.55959	519	521	2
47	0.63386	520	522	2
48	0.71193	522	524	2
49	0.79453	524	527	3
50	0.88260	526	529	3
51	0.97736	528	531	3
52	1.08049	529	533	4
53	1.19435	532	536	4

continued

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
54	1.32233	535	540	5
55	1.46949	538	544	6
56	1.64372	542	548	6
57	1.85863	546	553	7
58	2.14357	553	558	5
59	2.49027	560	560	0
60	2.49027	560	560	0

Table L-15. Scale Score / Adjusted Score Lookup—STE Grade 5

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-3.13040	440	441	1
1	-3.11862	440	441	1
2	-3.10683	440	441	1
3	-3.09505	441	441	0
4	-3.08327	441	441	0
5	-3.07148	441	441	0
6	-3.05970	441	441	0
7	-3.04792	442	441	-1
8	-3.03613	442	441	-1
9	-3.02435	442	441	-1
10	-3.01256	442	441	-1
11	-2.77407	447	441	-6
12	-2.56315	451	442	-9
13	-2.37279	455	444	-11
14	-2.19845	459	448	-11
15	-2.03702	462	452	-10
16	-1.88625	465	456	-9
17	-1.74446	468	460	-8
18	-1.61030	470	463	-7
19	-1.48271	473	467	-6
20	-1.36076	475	470	-5
21	-1.24370	477	472	-5
22	-1.13084	480	476	-4
23	-1.02158	482	479	-3
24	-0.91537	484	481	-3
25	-0.81173	486	483	-3
26	-0.71019	488	486	-2
27	-0.61031	490	488	-2
28	-0.51167	492	490	-2
29	-0.41388	494	492	-2
30	-0.31652	496	495	-1
31	-0.21921	498	497	-1
32	-0.12154	499	498	-1
33	-0.02312	502	501	-1
34	0.07649	504	503	-1
35	0.17772	506	506	0
36	0.28105	508	508	0
37	0.38700	510	510	0
38	0.49612	512	512	0
39	0.60907	514	514	0
40	0.72660	517	517	0
41	0.84956	519	520	1
42	0.97898	522	523	1
43	1.11614	524	525	1
44	1.26260	527	528	1
45	1.42037	530	531	1
46	1.59212	534	536	2
47	1.78155	538	541	3
48	1.99396	542	545	3
49	2.23750	547	551	4
50	2.52574	552	556	4
51	2.88421	560	560	0
52	2.90732	560	560	0
53	2.90732	560	560	0
54	2.90732	560	560	0

Table L-16. Scale Score / Adjusted Score Lookup—STE Grade 8

Raw Score	Theta Unadjusted	Scale Score Unadjusted	Scale Score Adjusted	Scale Score Adjustment
0	-2.97772	440	442	2
1	-2.97146	440	442	2
2	-2.96521	440	442	2
3	-2.95896	440	442	2
4	-2.95270	441	442	1
5	-2.94645	441	442	1
6	-2.94020	441	442	1
7	-2.93394	441	442	1
8	-2.92769	441	442	1
9	-2.65249	447	444	-3
10	-2.42120	451	448	-3
11	-2.22030	455	454	-1
12	-2.04152	459	460	1
13	-1.87948	462	463	1
14	-1.73049	465	467	2
15	-1.59188	468	470	2
16	-1.46173	471	473	2
17	-1.33855	473	475	2
18	-1.22118	476	479	3
19	-1.10871	478	481	3
20	-1.00036	480	483	3
21	-0.89549	482	485	3
22	-0.79353	484	487	3
23	-0.69397	486	489	3
24	-0.59635	488	491	3
25	-0.50027	490	493	3
26	-0.40532	492	495	3
27	-0.31116	494	497	3
28	-0.21745	496	499	3
29	-0.12388	498	501	3
30	-0.03015	499	502	3
31	0.06404	502	505	3
32	0.15899	504	507	3
33	0.25500	506	510	4
34	0.35238	508	512	4
35	0.45148	510	514	4
36	0.55264	512	516	4
37	0.65628	514	518	4
38	0.76285	516	520	4
39	0.87285	518	522	4
40	0.98691	520	524	4
41	1.10572	523	528	5
42	1.23015	525	530	5
43	1.36124	528	533	5
44	1.50028	531	537	6
45	1.64891	534	540	6
46	1.80928	537	544	7
47	1.98435	541	548	7
48	2.17847	545	552	7
49	2.39859	549	556	7
50	2.65697	554	559	5
51	2.93742	560	560	0
52	2.93742	560	560	0
53	2.93742	560	560	0
54	2.93742	560	560	0