

TABLE 1 Year 3 Numeracy Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
3	Numeracy	0	-6.05105	-7.67567	1.58045	-9.60065	94.91052	1
3	Numeracy	1	-4.76837	-6.26613	0.96799	75.04624	58.13055	1
3	Numeracy	2	-4.06675	-5.49512	0.79114	121.34759	47.51021	1
3	Numeracy	3	-3.53894	-4.91511	0.70001	156.17884	42.03759	1
3	Numeracy	4	-3.10130	-4.43419	0.64117	185.05945	38.50408	1
3	Numeracy	5	-2.72305	-4.01853	0.59813	210.02102	35.91941	1
3	Numeracy	6	-2.38867	-3.65108	0.56434	232.08744	33.89022	1
3	Numeracy	7	-2.08832	-3.32102	0.53690	251.90848	32.24237	1
3	Numeracy	8	-1.81488	-3.02054	0.51426	269.95316	30.88278	2
3	Numeracy	9	-1.56289	-2.74363	0.49543	286.58239	29.75198	2
3	Numeracy	10	-1.32809	-2.48561	0.47973	302.07723	28.80915	2
3	Numeracy	11	-1.10712	-2.24278	0.46667	316.65986	28.02486	2
3	Numeracy	12	-0.89731	-2.01222	0.45579	330.50564	27.37149	3
3	Numeracy	13	-0.69650	-1.79155	0.44679	343.75751	26.83101	3
3	Numeracy	14	-0.50293	-1.57884	0.43942	356.53135	26.38842	3
3	Numeracy	15	-0.31514	-1.37248	0.43349	368.92385	26.03231	3
3	Numeracy	16	-0.13186	-1.17107	0.42888	381.01910	25.75546	4
3	Numeracy	17	0.04797	-0.97346	0.42545	392.88614	25.54948	4
3	Numeracy	18	0.22538	-0.77850	0.42318	404.59404	25.41316	4
3	Numeracy	19	0.40125	-0.58524	0.42200	416.19986	25.34230	4
3	Numeracy	20	0.57649	-0.39267	0.42194	427.76423	25.33870	5
3	Numeracy	21	0.75203	-0.19976	0.42304	439.34903	25.40476	5
3	Numeracy	22	0.92883	-0.00548	0.42541	451.01609	25.54708	5
3	Numeracy	23	1.10799	0.19140	0.42917	462.83930	25.77288	5
3	Numeracy	24	1.29075	0.39224	0.43455	474.90031	26.09596	5
3	Numeracy	25	1.47862	0.59869	0.44182	487.29822	26.53255	6
3	Numeracy	26	1.67344	0.81277	0.45140	500.15434	27.10785	6
3	Numeracy	27	1.87760	1.03712	0.46389	513.62719	27.85791	6
3	Numeracy	28	2.09426	1.27521	0.48012	527.92517	28.83257	6
3	Numeracy	29	2.32788	1.53194	0.50126	543.34254	30.10209	6
3	Numeracy	30	2.58486	1.81433	0.52963	560.30086	31.80579	6
3	Numeracy	31	2.87540	2.13361	0.56892	579.47454	34.16527	6
3	Numeracy	32	3.21714	2.50915	0.62628	602.02678	37.60990	6
3	Numeracy	33	3.64523	2.97957	0.71878	630.27684	43.16479	6
3	Numeracy	34	4.24962	3.64374	0.89885	670.16214	53.97850	6
3	Numeracy	35	5.44449	4.95678	1.50520	749.01393	90.39154	6

TABLE 2 Year 3 Reading Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
3	Reading	0	-5.48303	-6.57327	1.50852	-20.35851	101.46768	1
3	Reading	1	-4.28491	-5.29152	0.90241	65.85592	60.69886	1
3	Reading	2	-3.67618	-4.64030	0.72299	109.65898	48.63052	1
3	Reading	3	-3.24300	-4.17689	0.63084	140.82935	42.43223	1
3	Reading	4	-2.89568	-3.80532	0.57359	165.82229	38.58142	1
3	Reading	5	-2.59937	-3.48833	0.53430	187.14401	35.93866	1
3	Reading	6	-2.33687	-3.20751	0.50539	206.03282	33.99408	1
3	Reading	7	-2.09834	-2.95233	0.48326	223.19701	32.50555	1
3	Reading	8	-1.87769	-2.71628	0.46576	239.07446	31.32845	1
3	Reading	9	-1.67093	-2.49509	0.45153	253.95238	30.37129	1
3	Reading	10	-1.47523	-2.28573	0.43985	268.03457	29.58566	1
3	Reading	11	-1.28859	-2.08606	0.43003	281.46499	28.92514	2
3	Reading	12	-1.10946	-1.89443	0.42173	294.35461	28.36685	2
3	Reading	13	-0.93664	-1.70954	0.41470	306.79088	27.89399	2
3	Reading	14	-0.76911	-1.53032	0.40877	318.84577	27.49512	2
3	Reading	15	-0.60603	-1.35586	0.40384	330.58048	27.16352	3
3	Reading	16	-0.44659	-1.18529	0.39985	342.05354	26.89514	3
3	Reading	17	-0.29009	-1.01786	0.39674	353.31540	26.68595	3
3	Reading	18	-0.13580	-0.85280	0.39453	364.41784	26.53730	3
3	Reading	19	0.01697	-0.68937	0.39322	375.41064	26.44918	4
3	Reading	20	0.16895	-0.52678	0.39284	386.34694	26.42362	4
3	Reading	21	0.32087	-0.36426	0.39342	397.27854	26.46264	4
3	Reading	22	0.47352	-0.20095	0.39503	408.26327	26.57093	4
3	Reading	23	0.62776	-0.03595	0.39774	419.36167	26.75321	4
3	Reading	24	0.78452	0.13175	0.40166	430.64169	27.01688	5
3	Reading	25	0.94483	0.30325	0.40694	442.17731	27.37203	5
3	Reading	26	1.10994	0.47989	0.41367	454.05865	27.82471	5
3	Reading	27	1.28122	0.66312	0.42215	466.38326	28.39510	5
3	Reading	28	1.46038	0.85479	0.43262	479.27558	29.09935	6
3	Reading	29	1.64948	1.05709	0.44545	492.88290	29.96233	6
3	Reading	30	1.85113	1.27281	0.46113	507.39288	31.01702	6
3	Reading	31	2.06867	1.50554	0.48066	523.04702	32.33067	6
3	Reading	32	2.30673	1.76021	0.50507	540.17690	33.97256	6
3	Reading	33	2.57185	2.04384	0.53642	559.25473	36.08125	6
3	Reading	34	2.87413	2.36722	0.57830	581.00626	38.89823	6
3	Reading	35	3.23095	2.74895	0.63776	606.68259	42.89769	6
3	Reading	36	3.67693	3.22605	0.73176	638.77379	49.22042	6
3	Reading	37	4.30123	3.89393	0.91283	683.69745	61.39974	6
3	Reading	38	5.51696	5.19452	1.52228	771.17912	102.39322	6

TABLE 3 Year 3 Spelling Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
3	Spelling	0	-6.08043	-7.35803	1.67845	183.75329	63.96288	1
3	Spelling	1	-4.66285	-5.89608	1.05184	239.46572	40.08384	1
3	Spelling	2	-3.81540	-5.02210	0.86934	272.77162	33.12907	2
3	Spelling	3	-3.16217	-4.34843	0.76869	298.44404	29.29347	2
3	Spelling	4	-2.62966	-3.79925	0.69988	319.37236	26.67124	2
3	Spelling	5	-2.17969	-3.33519	0.64869	337.05690	24.72048	3
3	Spelling	6	-1.78874	-2.93201	0.60919	352.42140	23.21520	3
3	Spelling	7	-1.44155	-2.57395	0.57844	366.06646	22.04337	3
3	Spelling	8	-1.12703	-2.24959	0.55469	378.42727	21.13830	4
3	Spelling	9	-0.83651	-1.94997	0.53679	389.84528	20.45616	4
3	Spelling	10	-0.56296	-1.66786	0.52401	400.59601	19.96913	4
3	Spelling	11	-0.30061	-1.39730	0.51573	410.90660	19.65360	4
3	Spelling	12	-0.04460	-1.13328	0.51147	420.96795	19.49125	4
3	Spelling	13	0.20926	-0.87147	0.51090	430.94509	19.46953	5
3	Spelling	14	0.46480	-0.60793	0.51379	440.98815	19.57967	5
3	Spelling	15	0.72563	-0.33894	0.52003	451.23890	19.81746	5
3	Spelling	16	0.99534	-0.06079	0.52960	461.83873	20.18216	5
3	Spelling	17	1.27759	0.23030	0.54261	472.93167	20.67795	5
3	Spelling	18	1.57629	0.53835	0.55936	484.67093	21.31626	6
3	Spelling	19	1.89595	0.86801	0.58051	497.23372	22.12225	6
3	Spelling	20	2.24218	1.22508	0.60760	510.84105	23.15461	6
3	Spelling	21	2.62319	1.61802	0.64382	525.81533	24.53489	6
3	Spelling	22	3.05350	2.06179	0.69632	542.72665	26.53557	6
3	Spelling	23	3.56465	2.58894	0.78194	562.81544	29.79841	6
3	Spelling	24	4.24266	3.28818	0.95491	589.46229	36.39000	6
3	Spelling	25	5.49879	4.58362	1.56124	638.82931	59.49621	6

TABLE 4 Year 3 Grammar & Punctuation Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
3	GP	0	-4.79920	-5.85811	1.52983	-22.67622	112.44616	1
3	GP	1	-3.57603	-4.47189	0.92038	79.21426	67.65013	1
3	GP	2	-2.94367	-3.75523	0.74070	131.89048	54.44322	1
3	GP	3	-2.48804	-3.23887	0.64912	169.84417	47.71187	1
3	GP	4	-2.11929	-2.82096	0.59255	200.56156	43.55384	1
3	GP	5	-1.80231	-2.46173	0.55387	226.96582	40.71077	1
3	GP	6	-1.51949	-2.14121	0.52595	250.52481	38.65858	1
3	GP	7	-1.26078	-1.84801	0.50497	272.07571	37.11650	2
3	GP	8	-1.01977	-1.57488	0.48890	292.15141	35.93532	2
3	GP	9	-0.79202	-1.31677	0.47655	311.12312	35.02756	2
3	GP	10	-0.57425	-1.06997	0.46720	329.26351	34.34032	3
3	GP	11	-0.36385	-0.83152	0.46038	346.79015	33.83903	3
3	GP	12	-0.15867	-0.59899	0.45580	363.88166	33.50239	3
3	GP	13	0.04326	-0.37015	0.45334	380.70195	33.32157	4
3	GP	14	0.24375	-0.14293	0.45294	397.40316	33.29217	4
3	GP	15	0.44463	0.08473	0.45466	414.13671	33.41860	4
3	GP	16	0.64779	0.31497	0.45867	431.05990	33.71334	5
3	GP	17	0.85540	0.55025	0.46528	448.35355	34.19919	5
3	GP	18	1.06997	0.79342	0.47498	466.22712	34.91216	5
3	GP	19	1.29473	1.04814	0.48857	484.94965	35.91106	6
3	GP	20	1.53405	1.31937	0.50720	504.88570	37.28041	6
3	GP	21	1.79417	1.61416	0.53304	526.55347	39.17971	6
3	GP	22	2.08500	1.94376	0.56973	550.77986	41.87652	6
3	GP	23	2.42364	2.32754	0.62476	578.98861	45.92135	6
3	GP	24	2.84486	2.80491	0.71458	614.07644	52.52334	6
3	GP	25	3.43779	3.47687	0.89198	663.46711	65.56266	6
3	GP	26	4.61600	4.81214	1.49365	761.61264	109.78684	6

TABLE 5 Year 5 Numeracy Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
5	Numeracy	0	-5.49876	-5.48427	1.49862	121.99916	89.99640	3
5	Numeracy	1	-4.31276	-4.23351	0.89469	197.11086	53.72868	3
5	Numeracy	2	-3.71424	-3.60232	0.71557	235.01561	42.97202	3
5	Numeracy	3	-3.29001	-3.15492	0.62355	261.88326	37.44595	3
5	Numeracy	4	-2.95109	-2.79750	0.56590	283.34735	33.98391	3
5	Numeracy	5	-2.66292	-2.49359	0.52628	301.59801	31.60461	3
5	Numeracy	6	-2.40855	-2.22533	0.49704	317.70778	29.84867	3
5	Numeracy	7	-2.17827	-1.98248	0.47462	332.29162	28.50228	3
5	Numeracy	8	-1.96597	-1.75859	0.45692	345.73685	27.43935	3
5	Numeracy	9	-1.76755	-1.54934	0.44266	358.30291	26.58299	3
5	Numeracy	10	-1.58009	-1.35164	0.43104	370.17535	25.88518	3
5	Numeracy	11	-1.40142	-1.16322	0.42144	381.49051	25.30867	4
5	Numeracy	12	-1.22986	-0.98229	0.41351	392.35587	24.83245	4
5	Numeracy	13	-1.06405	-0.80742	0.40698	402.85731	24.44031	4
5	Numeracy	14	-0.90292	-0.63750	0.40163	413.06149	24.11902	4
5	Numeracy	15	-0.74552	-0.47150	0.39732	423.03027	23.86020	4
5	Numeracy	16	-0.59106	-0.30861	0.39394	432.81227	23.65722	5
5	Numeracy	17	-0.43886	-0.14810	0.39138	442.45136	23.50348	5
5	Numeracy	18	-0.28828	0.01070	0.38959	451.98775	23.39599	5
5	Numeracy	19	-0.13875	0.16840	0.38852	461.45808	23.33173	5
5	Numeracy	20	0.01025	0.32553	0.38814	470.89419	23.30891	5
5	Numeracy	21	0.15923	0.48265	0.38843	480.32969	23.32633	6
5	Numeracy	22	0.30870	0.64028	0.38938	489.79582	23.38338	6
5	Numeracy	23	0.45916	0.79895	0.39102	499.32441	23.48186	6
5	Numeracy	24	0.61114	0.95923	0.39338	508.94968	23.62359	6
5	Numeracy	25	0.76520	1.12170	0.39651	518.70646	23.81155	6
5	Numeracy	26	0.92195	1.28701	0.40049	528.63380	24.05056	6
5	Numeracy	27	1.08213	1.45594	0.40542	538.77853	24.34663	7
5	Numeracy	28	1.24654	1.62932	0.41147	549.19049	24.70994	7
5	Numeracy	29	1.41619	1.80824	0.41884	559.93514	25.15253	7
5	Numeracy	30	1.59232	1.99398	0.42780	571.08936	25.69061	7
5	Numeracy	31	1.77649	2.18821	0.43874	582.75342	26.34759	8
5	Numeracy	32	1.97080	2.39313	0.45220	595.05945	27.15590	8
5	Numeracy	33	2.17800	2.61164	0.46918	608.18160	28.17559	8
5	Numeracy	34	2.40216	2.84804	0.49085	622.37809	29.47694	8
5	Numeracy	35	2.64928	3.10865	0.51939	638.02847	31.19085	8
5	Numeracy	36	2.92905	3.40370	0.55841	655.74706	33.53411	8
5	Numeracy	37	3.25845	3.75108	0.61538	676.60822	36.95532	8
5	Numeracy	38	3.67199	4.18720	0.70722	702.79846	42.47057	8
5	Numeracy	39	4.25892	4.80618	0.88600	739.96997	53.20682	8
5	Numeracy	40	5.43265	6.04400	1.48820	814.30459	89.37065	8

TABLE 6 Year 5 Reading Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
5	Reading	0	-5.35986	-4.97880	1.50169	86.89043	101.00827	3
5	Reading	1	-4.17035	-3.77156	0.89740	168.09309	60.36188	3
5	Reading	2	-3.56822	-3.16046	0.71827	209.19755	48.31304	3
5	Reading	3	-3.14047	-2.72634	0.62616	238.39779	42.11744	3
5	Reading	4	-2.79827	-2.37904	0.56848	261.75826	38.23771	3
5	Reading	5	-2.50728	-2.08371	0.52845	281.62306	35.54517	3
5	Reading	6	-2.25055	-1.82316	0.49888	299.14845	33.55620	3
5	Reading	7	-2.01841	-1.58756	0.47612	314.99563	32.02529	3
5	Reading	8	-1.80472	-1.37068	0.45807	329.58364	30.81119	3
5	Reading	9	-1.60534	-1.16833	0.44350	343.19432	29.83117	3
5	Reading	10	-1.41728	-0.97747	0.43160	356.03215	29.03074	3
5	Reading	11	-1.23828	-0.79580	0.42179	368.25183	28.37089	3
5	Reading	12	-1.06660	-0.62157	0.41369	379.97108	27.82606	4
5	Reading	13	-0.90082	-0.45332	0.40705	391.28809	27.37943	4
5	Reading	14	-0.73977	-0.28987	0.40166	402.28224	27.01688	4
5	Reading	15	-0.58251	-0.13026	0.39735	413.01809	26.72698	4
5	Reading	16	-0.42815	0.02640	0.39406	423.55553	26.50568	4
5	Reading	17	-0.27598	0.18083	0.39164	433.94296	26.34291	5
5	Reading	18	-0.12533	0.33373	0.39006	444.22748	26.23663	5
5	Reading	19	0.02442	0.48571	0.38928	454.45012	26.18417	5
5	Reading	20	0.17387	0.63739	0.38928	464.65259	26.18417	5
5	Reading	21	0.32360	0.78935	0.39007	474.87388	26.23730	5
5	Reading	22	0.47421	0.94220	0.39167	485.15504	26.34493	6
5	Reading	23	0.62632	1.09658	0.39415	495.53911	26.51174	6
5	Reading	24	0.78063	1.25319	0.39756	506.07318	26.74110	6
5	Reading	25	0.93791	1.41281	0.40204	516.80971	27.04244	6
5	Reading	26	1.09907	1.57637	0.40773	527.81126	27.42517	6
5	Reading	27	1.26516	1.74494	0.41485	539.14979	27.90408	7
5	Reading	28	1.43753	1.91988	0.42368	550.91680	28.49802	7
5	Reading	29	1.61783	2.10286	0.43462	563.22459	29.23387	7
5	Reading	30	1.80825	2.29612	0.44822	576.22385	30.14865	7
5	Reading	31	2.01173	2.50263	0.46535	590.11435	31.30087	8
5	Reading	32	2.23238	2.72657	0.48734	605.17724	32.77998	8
5	Reading	33	2.47637	2.97419	0.51630	621.83292	34.72792	8
5	Reading	34	2.75346	3.25541	0.55596	640.74864	37.39557	8
5	Reading	35	3.08083	3.58766	0.61334	663.09679	41.25513	8
5	Reading	36	3.49296	4.00593	0.70570	691.23091	47.46755	8
5	Reading	37	4.07910	4.60080	0.88500	731.24369	59.52781	8
5	Reading	38	5.25261	5.79180	1.48760	811.35401	100.06054	8

TABLE 7 Year 5 Spelling Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
5	Spelling	0	-5.75781	-4.73266	1.62211	283.80168	61.81586	3
5	Spelling	1	-4.41835	-3.44437	1.00092	332.89623	38.14336	3
5	Spelling	2	-3.66058	-2.71554	0.81953	360.67071	31.23090	3
5	Spelling	3	-3.09001	-2.16677	0.72409	381.58340	27.59384	4
5	Spelling	4	-2.62343	-1.71801	0.66280	398.68488	25.25818	4
5	Spelling	5	-2.22276	-1.33265	0.62017	413.37030	23.63363	4
5	Spelling	6	-1.86604	-0.98956	0.58939	426.44488	22.46065	5
5	Spelling	7	-1.53987	-0.67584	0.56669	438.40021	21.59559	5
5	Spelling	8	-1.23552	-0.38312	0.54989	449.55528	20.95538	5
5	Spelling	9	-0.94663	-0.10527	0.53783	460.14367	20.49579	5
5	Spelling	10	-0.66830	0.16243	0.52972	470.34526	20.18673	5
5	Spelling	11	-0.39644	0.42391	0.52504	480.30982	20.00838	6
5	Spelling	12	-0.12755	0.68252	0.52342	490.16501	19.94665	6
5	Spelling	13	0.14151	0.94131	0.52463	500.02706	19.99276	6
5	Spelling	14	0.41364	1.20304	0.52852	510.00114	20.14100	6
5	Spelling	15	0.69165	1.47043	0.53506	520.19092	20.39023	6
5	Spelling	16	0.97846	1.74628	0.54422	530.70310	20.73930	7
5	Spelling	17	1.27708	2.03350	0.55618	541.64857	21.19508	7
5	Spelling	18	1.59071	2.33515	0.57122	553.14394	21.76823	7
5	Spelling	19	1.92287	2.65462	0.59001	565.31839	22.48428	7
5	Spelling	20	2.27805	2.99623	0.61414	578.33657	23.40383	7
5	Spelling	21	2.66350	3.36696	0.64740	592.46446	24.67132	8
5	Spelling	22	3.09382	3.78084	0.69716	608.23673	26.56759	8
5	Spelling	23	3.60159	4.26921	0.78076	626.84768	29.75344	8
5	Spelling	24	4.27447	4.91639	0.95243	651.51061	36.29549	8
5	Spelling	25	5.52517	6.11931	1.55763	697.35185	59.35864	8

TABLE 8 Year 5 Grammar & Punctuation Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
5	GP	0	-4.92369	-4.44065	1.52860	81.51047	112.35575	3
5	GP	1	-3.70392	-3.19965	0.92074	172.72694	67.67659	3
5	GP	2	-3.07204	-2.55678	0.74263	219.97942	54.58508	3
5	GP	3	-2.61448	-2.09126	0.65239	254.19625	47.95222	3
5	GP	4	-2.24193	-1.71223	0.59697	282.05586	43.87872	3
5	GP	5	-1.91980	-1.38449	0.55927	306.14553	41.10768	3
5	GP	6	-1.63089	-1.09055	0.53221	327.75083	39.11871	3
5	GP	7	-1.36539	-0.82043	0.51205	347.60529	37.63690	3
5	GP	8	-1.11709	-0.56781	0.49668	366.17347	36.50717	3
5	GP	9	-0.88159	-0.32822	0.48502	383.78390	35.65013	4
5	GP	10	-0.65560	-0.09829	0.47639	400.68431	35.01580	4
5	GP	11	-0.43648	0.12464	0.47035	417.07019	34.57185	4
5	GP	12	-0.22194	0.34291	0.46666	433.11356	34.30062	5
5	GP	13	-0.00989	0.55865	0.46523	448.97097	34.19552	5
5	GP	14	0.20170	0.77392	0.46606	464.79383	34.25652	5
5	GP	15	0.41494	0.99087	0.46927	480.74017	34.49247	6
5	GP	16	0.63214	1.21185	0.47510	496.98273	34.92098	6
5	GP	17	0.85594	1.43955	0.48390	513.71922	35.56781	6
5	GP	18	1.08956	1.67723	0.49631	531.18927	36.47997	7
5	GP	19	1.33714	1.92912	0.51314	549.70379	37.71702	7
5	GP	20	1.60430	2.20093	0.53557	569.68247	39.36567	7
5	GP	21	1.89889	2.50064	0.56593	591.71187	41.59721	8
5	GP	22	2.23292	2.84049	0.60780	616.69166	44.67475	8
5	GP	23	2.62601	3.24042	0.66832	646.08747	49.12312	8
5	GP	24	3.11484	3.73775	0.76365	682.64241	56.13010	8
5	GP	25	3.78823	4.42286	0.94687	732.99963	69.59721	8
5	GP	26	5.05529	5.71197	1.56290	827.75230	114.87688	8

TABLE 9 Year 7 Numeracy Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
7	Numeracy	0	-5.68523	-3.96008	1.45805	213.53111	87.56005	4
7	Numeracy	1	-4.54311	-2.85017	0.85734	280.18436	51.48571	4
7	Numeracy	2	-3.98910	-2.31178	0.67603	312.51621	40.59753	4
7	Numeracy	3	-3.60973	-1.94311	0.58120	334.65590	34.90271	4
7	Numeracy	4	-3.31573	-1.65740	0.52114	351.81360	31.29594	4
7	Numeracy	5	-3.07253	-1.42106	0.47910	366.00649	28.77132	4
7	Numeracy	6	-2.86304	-1.21748	0.44777	378.23204	26.88986	4
7	Numeracy	7	-2.67753	-1.03720	0.42344	389.05837	25.42878	4
7	Numeracy	8	-2.50994	-0.87433	0.40390	398.83918	24.25534	4
7	Numeracy	9	-2.35623	-0.72496	0.38786	407.80927	23.29210	4
7	Numeracy	10	-2.21355	-0.58630	0.37448	416.13620	22.48859	4
7	Numeracy	11	-2.07981	-0.45633	0.36316	423.94127	21.80879	4
7	Numeracy	12	-1.95346	-0.33355	0.35349	431.31456	21.22808	5
7	Numeracy	13	-1.83329	-0.21677	0.34514	438.32753	20.72664	5
7	Numeracy	14	-1.71834	-0.10506	0.33788	445.03603	20.29066	5
7	Numeracy	15	-1.60783	0.00234	0.33159	451.48571	19.91292	5
7	Numeracy	16	-1.50113	0.10603	0.32608	457.71259	19.58203	5
7	Numeracy	17	-1.39773	0.20651	0.32123	463.74670	19.29078	5
7	Numeracy	18	-1.29716	0.30425	0.31697	469.61626	19.03495	5
7	Numeracy	19	-1.19905	0.39959	0.31324	475.34170	18.81095	5
7	Numeracy	20	-1.10308	0.49285	0.30997	480.94223	18.61458	6
7	Numeracy	21	-1.00895	0.58433	0.30712	486.43586	18.44343	6
7	Numeracy	22	-0.91640	0.67427	0.30464	491.83702	18.29450	6
7	Numeracy	23	-0.82522	0.76288	0.30250	497.15830	18.16599	6
7	Numeracy	24	-0.73518	0.85038	0.30070	502.41292	18.05789	6
7	Numeracy	25	-0.64612	0.93693	0.29919	507.61050	17.96721	6
7	Numeracy	26	-0.55785	1.02271	0.29796	512.76183	17.89335	6
7	Numeracy	27	-0.47021	1.10788	0.29699	517.87653	17.83509	6
7	Numeracy	28	-0.38306	1.19257	0.29627	522.96241	17.79186	6
7	Numeracy	29	-0.29624	1.27694	0.29579	528.02907	17.76303	6
7	Numeracy	30	-0.20962	1.36112	0.29555	533.08431	17.74862	7
7	Numeracy	31	-0.12306	1.44524	0.29554	538.13596	17.74802	7
7	Numeracy	32	-0.03643	1.52942	0.29575	543.19121	17.76063	7
7	Numeracy	33	0.05039	1.61380	0.29620	548.25847	17.78765	7
7	Numeracy	34	0.13755	1.69850	0.29687	553.34494	17.82789	7
7	Numeracy	35	0.22517	1.78365	0.29777	558.45844	17.88194	7
7	Numeracy	36	0.31341	1.86940	0.29890	563.60798	17.94980	7
7	Numeracy	37	0.40239	1.95587	0.30027	568.80074	18.03207	7
7	Numeracy	38	0.49226	2.04320	0.30190	574.04516	18.12995	7
7	Numeracy	39	0.58319	2.13157	0.30378	579.35203	18.24285	7
7	Numeracy	40	0.67533	2.22111	0.30594	584.72916	18.37257	8
7	Numeracy	41	0.76886	2.31200	0.30839	590.18736	18.51970	8
7	Numeracy	42	0.86399	2.40445	0.31116	595.73925	18.68604	8
7	Numeracy	43	0.96092	2.49865	0.31426	601.39623	18.87221	8
7	Numeracy	44	1.05989	2.59483	0.31773	607.17211	19.08059	8

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
7	Numeracy	45	1.16116	2.69324	0.32161	613.08191	19.31360	8
7	Numeracy	46	1.26502	2.79417	0.32592	619.14305	19.57242	8
7	Numeracy	47	1.37182	2.89796	0.33073	625.37593	19.86128	8
7	Numeracy	48	1.48193	3.00497	0.33609	631.80219	20.18316	8
7	Numeracy	49	1.59579	3.11561	0.34218	638.44643	20.54888	9
7	Numeracy	50	1.71395	3.23044	0.34897	645.34230	20.95664	9
7	Numeracy	51	1.83705	3.35007	0.35665	652.52642	21.41785	9
7	Numeracy	52	1.96584	3.47523	0.36537	660.04264	21.94151	9
7	Numeracy	53	2.10129	3.60686	0.37538	667.94739	22.54264	9
7	Numeracy	54	2.24458	3.74611	0.38695	676.30975	23.23745	9
7	Numeracy	55	2.39726	3.89448	0.40050	685.21979	24.05117	9
7	Numeracy	56	2.56139	4.05398	0.41660	694.79822	25.01802	9
7	Numeracy	57	2.73977	4.22733	0.43609	705.20838	26.18845	9
7	Numeracy	58	2.93641	4.41843	0.46023	716.68448	27.63812	9
7	Numeracy	59	3.15727	4.63306	0.49135	729.57362	29.50697	9
7	Numeracy	60	3.41202	4.88063	0.53297	744.44091	32.00637	9
7	Numeracy	61	3.71762	5.17761	0.59249	762.27540	35.58071	9
7	Numeracy	62	4.10854	5.55751	0.68666	785.08948	41.23589	9
7	Numeracy	63	4.67390	6.10692	0.86731	818.08311	52.08443	9
7	Numeracy	64	5.82699	7.22749	1.46873	885.37653	88.20142	9

TABLE 10 Year 7 Non-Calculator Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
7	NC	0	-4.82562	-3.12471	1.47956	263.69745	88.85179	4
7	NC	1	-3.66175	-1.99366	0.87891	331.62023	52.78105	4
7	NC	2	-3.08439	-1.43258	0.70012	365.31468	42.04420	4
7	NC	3	-2.67997	-1.03957	0.60823	388.91605	36.52594	4
7	NC	4	-2.35905	-0.72770	0.55164	407.64473	33.12755	4
7	NC	5	-2.08708	-0.46340	0.51303	423.51669	30.80891	4
7	NC	6	-1.84684	-0.22993	0.48538	437.53723	29.14845	5
7	NC	7	-1.62862	-0.01787	0.46462	450.27204	27.90175	5
7	NC	8	-1.42615	0.17889	0.44897	462.08804	26.96193	5
7	NC	9	-1.23538	0.36428	0.43689	473.22123	26.23649	5
7	NC	10	-1.05326	0.54127	0.42768	483.84999	25.68340	6
7	NC	11	-0.87763	0.71195	0.42067	494.09981	25.26243	6
7	NC	12	-0.70669	0.87806	0.41557	504.07519	24.95616	6
7	NC	13	-0.53904	1.04099	0.41209	513.85960	24.74718	6
7	NC	14	-0.37345	1.20191	0.41003	523.52330	24.62347	6
7	NC	15	-0.20886	1.36186	0.40927	533.12875	24.57783	7
7	NC	16	-0.04424	1.52183	0.40975	542.73541	24.60665	7
7	NC	17	0.12130	1.68271	0.41145	552.39671	24.70874	7
7	NC	18	0.28879	1.84547	0.41437	562.17091	24.88410	7
7	NC	19	0.45922	2.01110	0.41859	572.11746	25.13752	7
7	NC	20	0.63368	2.18064	0.42419	582.29882	25.47382	8
7	NC	21	0.81343	2.35532	0.43136	592.78885	25.90440	8
7	NC	22	0.99992	2.53655	0.44036	603.67223	26.44487	8
7	NC	23	1.19497	2.72610	0.45153	615.05525	27.11566	8
7	NC	24	1.40085	2.92617	0.46541	627.07002	27.94920	8
7	NC	25	1.62063	3.13975	0.48275	639.89611	28.99051	9
7	NC	26	1.85850	3.37092	0.50506	653.77853	30.33029	9
7	NC	27	2.12081	3.62583	0.53424	669.08660	32.08263	9
7	NC	28	2.41749	3.91414	0.57410	686.40043	34.47634	9
7	NC	29	2.76600	4.25282	0.63169	706.73913	37.93478	9
7	NC	30	3.20125	4.67580	0.72411	732.14028	43.48487	9
7	NC	31	3.81288	5.27018	0.90431	767.83449	54.30639	9
7	NC	32	5.01490	6.43831	1.51144	837.98403	90.76627	9

TABLE 11 Year 7 Calculator Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
7	CA	0	-5.20298	-3.49143	1.51821	241.67487	91.17283	4
7	CA	1	-3.99350	-2.31606	0.91076	312.25919	54.69373	4
7	CA	2	-3.37318	-1.71323	0.73114	348.46085	43.90704	4
7	CA	3	-2.92934	-1.28191	0.63842	374.36284	38.33894	4
7	CA	4	-2.57274	-0.93536	0.58075	395.17415	34.87569	4
7	CA	5	-2.26872	-0.63992	0.54083	412.91617	32.47838	4
7	CA	6	-1.99973	-0.37851	0.51166	428.61458	30.72664	5
7	CA	7	-1.75558	-0.14125	0.48961	442.86272	29.40247	5
7	CA	8	-1.52974	0.07822	0.47251	456.04252	28.37557	5
7	CA	9	-1.31770	0.28429	0.45910	468.41761	27.57026	5
7	CA	10	-1.11615	0.48015	0.44861	480.17956	26.94031	6
7	CA	11	-0.92260	0.66824	0.44048	491.47490	26.45208	6
7	CA	12	-0.73508	0.85048	0.43433	502.41893	26.08275	6
7	CA	13	-0.55195	1.02844	0.42991	513.10593	25.81732	6
7	CA	14	-0.37182	1.20349	0.42702	523.61818	25.64377	6
7	CA	15	-0.19346	1.37682	0.42554	534.02714	25.55489	7
7	CA	16	-0.01569	1.54958	0.42542	544.40187	25.54768	7
7	CA	17	0.16256	1.72280	0.42663	554.80423	25.62035	7
7	CA	18	0.34245	1.89762	0.42917	565.30267	25.77288	7
7	CA	19	0.52512	2.07514	0.43311	575.96325	26.00949	7
7	CA	20	0.71181	2.25656	0.43853	586.85804	26.33497	8
7	CA	21	0.90391	2.44325	0.44559	598.06930	26.75895	8
7	CA	22	1.10299	2.63671	0.45450	609.68712	27.29402	8
7	CA	23	1.31093	2.83879	0.46558	621.82260	27.95940	8
7	CA	24	1.53004	3.05172	0.47931	634.60966	28.78393	9
7	CA	25	1.76333	3.27843	0.49636	648.22424	29.80783	9
7	CA	26	2.01483	3.52284	0.51813	662.90175	31.11518	9
7	CA	27	2.29051	3.79074	0.54648	678.98991	32.81768	9
7	CA	28	2.59979	4.09130	0.58510	697.03939	35.13692	9
7	CA	29	2.95931	4.44068	0.64103	718.02066	38.49568	9
7	CA	30	3.40288	4.87174	0.73149	743.90704	43.92806	9
7	CA	31	4.01901	5.47050	0.90905	779.86428	54.59104	9
7	CA	32	5.22035	6.63796	1.51327	849.97358	90.87617	9

TABLE 12 Year 7 Reading Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
7	Reading	0	-5.59459	-4.31032	1.49184	131.85444	100.34573	4
7	Reading	1	-4.41422	-3.10174	0.88451	213.14724	59.49485	4
7	Reading	2	-3.82612	-2.49958	0.70286	253.65037	47.27652	4
7	Reading	3	-3.41602	-2.07968	0.60787	281.89413	40.88720	4
7	Reading	4	-3.09372	-1.74968	0.54796	304.09094	36.85747	4
7	Reading	5	-2.82403	-1.47354	0.50616	322.66496	34.04587	4
7	Reading	6	-2.58942	-1.23333	0.47509	338.82222	31.95601	4
7	Reading	7	-2.37984	-1.01874	0.45095	353.25621	30.33228	4
7	Reading	8	-2.18901	-0.82335	0.43164	366.39874	29.03343	4
7	Reading	9	-2.01271	-0.64283	0.41583	378.54106	27.97000	4
7	Reading	10	-1.84798	-0.47417	0.40267	389.88565	27.08482	4
7	Reading	11	-1.69266	-0.31513	0.39155	400.58317	26.33685	4
7	Reading	12	-1.54513	-0.16408	0.38206	410.74326	25.69853	4
7	Reading	13	-1.40412	-0.01970	0.37386	420.45470	25.14697	4
7	Reading	14	-1.26864	0.11902	0.36679	429.78543	24.67142	5
7	Reading	15	-1.13789	0.25289	0.36062	438.78994	24.25641	5
7	Reading	16	-1.01120	0.38261	0.35523	447.51530	23.89386	5
7	Reading	17	-0.88801	0.50875	0.35051	455.99987	23.57638	5
7	Reading	18	-0.76787	0.63176	0.34640	464.27390	23.29993	5
7	Reading	19	-0.65033	0.75211	0.34283	472.36901	23.05980	5
7	Reading	20	-0.53506	0.87013	0.33976	480.30739	22.85330	6
7	Reading	21	-0.42169	0.98621	0.33716	488.11529	22.67842	6
7	Reading	22	-0.30994	1.10063	0.33501	495.81153	22.53380	6
7	Reading	23	-0.19951	1.21370	0.33327	503.41696	22.41676	6
7	Reading	24	-0.09012	1.32571	0.33196	510.95110	22.32865	6
7	Reading	25	0.01849	1.43691	0.33106	518.43075	22.26811	6
7	Reading	26	0.12661	1.54762	0.33059	525.87745	22.23650	6
7	Reading	27	0.23451	1.65809	0.33055	533.30800	22.23381	7
7	Reading	28	0.34247	1.76863	0.33096	540.74326	22.26138	7
7	Reading	29	0.45079	1.87954	0.33185	548.20340	22.32125	7
7	Reading	30	0.55980	1.99116	0.33324	555.71131	22.41474	7
7	Reading	31	0.66984	2.10383	0.33518	563.28984	22.54523	7
7	Reading	32	0.78129	2.21794	0.33772	570.96522	22.71608	7
7	Reading	33	0.89456	2.33392	0.34091	578.76640	22.93065	7
7	Reading	34	1.01016	2.45228	0.34485	586.72765	23.19567	8
7	Reading	35	1.12862	2.57357	0.34962	594.88599	23.51651	8
7	Reading	36	1.25061	2.69848	0.35536	603.28782	23.90260	8
7	Reading	37	1.37690	2.82779	0.36222	611.98561	24.36403	8
7	Reading	38	1.50844	2.96247	0.37041	621.04460	24.91491	8
7	Reading	39	1.64641	3.10374	0.38019	630.54685	25.57275	8
7	Reading	40	1.79232	3.25314	0.39188	640.59595	26.35905	9
7	Reading	41	1.94807	3.41261	0.40624	651.32239	27.32495	9
7	Reading	42	2.11636	3.58492	0.42378	662.91249	28.50474	9
7	Reading	43	2.30086	3.77383	0.44568	675.61916	29.97780	9
7	Reading	44	2.50697	3.98487	0.47362	689.81435	31.85713	9

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
7	Reading	45	2.74308	4.22662	0.51033	706.07520	34.32636	9
7	Reading	46	3.02316	4.51339	0.56086	725.36423	37.72516	9
7	Reading	47	3.37318	4.87178	0.63481	749.47064	42.69927	9
7	Reading	48	3.84863	5.35859	0.75395	782.21497	50.71299	9
7	Reading	49	4.59014	6.11782	0.98056	833.28311	65.95547	9
7	Reading	50	6.05765	7.62041	1.67651	934.35192	112.76720	9

TABLE 13 Year 7 Spelling Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
7	Spelling	0	-5.53846	-3.76177	1.52147	320.80066	57.98064	4
7	Spelling	1	-4.32948	-2.47880	0.91843	369.69247	34.99981	4
7	Spelling	2	-3.70309	-1.81408	0.74347	395.02382	28.33238	4
7	Spelling	3	-3.24605	-1.32907	0.65637	413.50673	25.01315	4
7	Spelling	4	-2.86971	-0.92969	0.60382	428.72642	23.01056	5
7	Spelling	5	-2.53985	-0.57965	0.56913	442.06585	21.68858	5
7	Spelling	6	-2.23982	-0.26125	0.54488	454.19954	20.76445	5
7	Spelling	7	-1.96020	0.03548	0.52733	465.50741	20.09565	5
7	Spelling	8	-1.69504	0.31687	0.51443	476.23071	19.60405	5
7	Spelling	9	-1.44032	0.58717	0.50484	486.53138	19.23860	6
7	Spelling	10	-1.19310	0.84952	0.49780	496.52910	18.97031	6
7	Spelling	11	-0.95119	1.10624	0.49269	506.31226	18.77558	6
7	Spelling	12	-0.71293	1.35908	0.48914	515.94756	18.64030	6
7	Spelling	13	-0.47710	1.60934	0.48680	525.48455	18.55112	6
7	Spelling	14	-0.24276	1.85803	0.48546	534.96170	18.50006	7
7	Spelling	15	-0.00919	2.10589	0.48501	544.40723	18.48291	7
7	Spelling	16	0.22429	2.35366	0.48545	553.84932	18.49968	7
7	Spelling	17	0.45840	2.60210	0.48685	563.31695	18.55303	7
7	Spelling	18	0.69402	2.85214	0.48941	572.84555	18.65058	7
7	Spelling	19	0.93234	3.10504	0.49336	582.48314	18.80111	8
7	Spelling	20	1.17484	3.36238	0.49907	592.28993	19.01871	8
7	Spelling	21	1.42352	3.62628	0.50693	602.34671	19.31824	8
7	Spelling	22	1.68084	3.89935	0.51750	612.75294	19.72105	8
7	Spelling	23	1.95002	4.18500	0.53147	623.63858	20.25342	8
7	Spelling	24	2.23523	4.48767	0.55012	635.17282	20.96414	9
7	Spelling	25	2.54251	4.81375	0.57540	647.59918	21.92752	9
7	Spelling	26	2.88121	5.17318	0.61097	661.29644	23.28303	9
7	Spelling	27	3.26792	5.58356	0.66405	676.93533	25.30582	9
7	Spelling	28	3.73653	6.08085	0.75177	695.88621	28.64868	9
7	Spelling	29	4.37552	6.75894	0.92753	721.72707	35.34660	9
7	Spelling	30	5.59813	8.05638	1.53246	771.17031	58.39945	9

TABLE 14 Year 7 Grammar & Punctuation Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
7	GP	0	-5.04575	-3.89908	1.54527	121.31716	113.58104	4
7	GP	1	-3.80374	-2.67359	0.93299	211.39361	68.57699	4
7	GP	2	-3.15188	-2.03040	0.75257	258.66961	55.31569	4
7	GP	3	-2.67910	-1.56391	0.65903	292.95774	48.44028	4
7	GP	4	-2.29679	-1.18668	0.60020	320.68504	44.11613	4
7	GP	5	-1.97028	-0.86452	0.55895	344.36457	41.08416	4
7	GP	6	-1.68179	-0.57986	0.52839	365.28776	38.83793	4
7	GP	7	-1.42073	-0.32228	0.50495	384.22051	37.11503	4
7	GP	8	-1.18015	-0.08489	0.48663	401.66924	35.76847	4
7	GP	9	-0.95517	0.13709	0.47216	417.98530	34.70489	4
7	GP	10	-0.74215	0.34728	0.46080	433.43477	33.86990	5
7	GP	11	-0.53825	0.54847	0.45205	448.22271	33.22675	5
7	GP	12	-0.34118	0.74292	0.44557	462.51525	32.75046	5
7	GP	13	-0.14899	0.93255	0.44113	476.45351	32.42411	5
7	GP	14	0.04002	1.11905	0.43862	490.16171	32.23962	6
7	GP	15	0.22756	1.30409	0.43802	503.76259	32.19552	6
7	GP	16	0.41518	1.48922	0.43937	517.37008	32.29474	6
7	GP	17	0.60460	1.67612	0.44284	531.10768	32.54980	7
7	GP	18	0.79776	1.86671	0.44869	545.11650	32.97979	7
7	GP	19	0.99691	2.06321	0.45735	559.55972	33.61632	7
7	GP	20	1.20491	2.26844	0.46944	574.64462	34.50496	7
7	GP	21	1.42552	2.48612	0.48593	590.64462	35.71702	8
7	GP	22	1.66405	2.72148	0.50809	607.94414	37.34583	8
7	GP	23	1.92819	2.98210	0.53855	627.10033	39.58471	8
7	GP	24	2.23034	3.28024	0.58144	649.01433	42.73723	9
7	GP	25	2.59218	3.63726	0.64476	675.25616	47.39140	9
7	GP	26	3.05659	4.09550	0.74610	708.93789	54.84013	9
7	GP	27	3.72679	4.75678	0.94135	757.54355	69.19147	9
7	GP	28	5.03036	6.04302	1.58048	852.08526	116.16906	9

TABLE 15 Year 9 Numeracy Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
9	Numeracy	0	-5.87732	-3.41126	1.47448	246.48931	88.54672	5
9	Numeracy	1	-4.71649	-2.31404	0.87108	312.38049	52.31083	5
9	Numeracy	2	-4.14529	-1.77414	0.68923	344.80303	41.39022	5
9	Numeracy	3	-3.75040	-1.40089	0.59383	367.21775	35.66118	5
9	Numeracy	4	-3.44255	-1.10991	0.53313	384.69193	32.01597	5
9	Numeracy	5	-3.18712	-0.86848	0.49034	399.19049	29.44631	5
9	Numeracy	6	-2.96690	-0.66033	0.45819	411.69049	27.51561	5
9	Numeracy	7	-2.77203	-0.47614	0.43305	422.75162	26.00589	5
9	Numeracy	8	-2.59630	-0.31004	0.41271	432.72640	24.78441	5
9	Numeracy	9	-2.43551	-0.15806	0.39591	441.85323	23.77552	5
9	Numeracy	10	-2.28666	-0.01737	0.38182	450.30207	22.92938	5
9	Numeracy	11	-2.14755	0.11412	0.36986	458.19841	22.21115	5
9	Numeracy	12	-2.01650	0.23799	0.35960	465.63716	21.59500	5
9	Numeracy	13	-1.89218	0.35550	0.35075	472.69397	21.06354	5
9	Numeracy	14	-1.77355	0.46762	0.34306	479.42710	20.60173	6
9	Numeracy	15	-1.65975	0.57519	0.33639	485.88698	20.20118	6
9	Numeracy	16	-1.55007	0.67886	0.33057	492.11266	19.85167	6
9	Numeracy	17	-1.44393	0.77918	0.32548	498.13716	19.54600	6
9	Numeracy	18	-1.34082	0.87664	0.32104	503.98991	19.27937	6
9	Numeracy	19	-1.24030	0.97165	0.31718	509.69553	19.04756	6
9	Numeracy	20	-1.14202	1.06455	0.31383	515.27444	18.84638	6
9	Numeracy	21	-1.04562	1.15566	0.31094	520.74586	18.67283	6
9	Numeracy	22	-0.95084	1.24525	0.30848	526.12599	18.52510	6
9	Numeracy	23	-0.85741	1.33356	0.30640	531.42926	18.40019	7
9	Numeracy	24	-0.76510	1.42081	0.30467	536.66887	18.29630	7
9	Numeracy	25	-0.67369	1.50721	0.30327	541.85743	18.21223	7
9	Numeracy	26	-0.58301	1.59292	0.30217	547.00456	18.14617	7
9	Numeracy	27	-0.49286	1.67813	0.30135	552.12167	18.09693	7
9	Numeracy	28	-0.40309	1.76298	0.30081	557.21715	18.06450	7
9	Numeracy	29	-0.31354	1.84763	0.30052	562.30062	18.04708	7
9	Numeracy	30	-0.22406	1.93220	0.30047	567.37929	18.04408	7
9	Numeracy	31	-0.13451	2.01685	0.30066	572.46277	18.05549	7
9	Numeracy	32	-0.04476	2.10168	0.30107	577.55705	18.08011	7
9	Numeracy	33	0.04533	2.18683	0.30172	582.67055	18.11914	8
9	Numeracy	34	0.13589	2.27243	0.30259	587.81107	18.17139	8
9	Numeracy	35	0.22706	2.35860	0.30368	592.98583	18.23685	8
9	Numeracy	36	0.31898	2.44548	0.30498	598.20322	18.31492	8
9	Numeracy	37	0.41176	2.53318	0.30654	603.46985	18.40860	8
9	Numeracy	38	0.50557	2.62185	0.30832	608.79474	18.51549	8
9	Numeracy	39	0.60055	2.71162	0.31036	614.18568	18.63800	8
9	Numeracy	40	0.69687	2.80267	0.31266	619.65350	18.77612	8
9	Numeracy	41	0.79469	2.89513	0.31523	625.20598	18.93046	8
9	Numeracy	42	0.89421	2.98919	0.31810	630.85455	19.10281	8
9	Numeracy	43	0.99564	3.08506	0.32130	636.61182	19.29498	9
9	Numeracy	44	1.09920	3.18295	0.32484	642.49039	19.50757	9

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
9	Numeracy	45	1.20515	3.28309	0.32878	648.50408	19.74417	9
9	Numeracy	46	1.31379	3.38578	0.33314	654.67091	20.00601	9
9	Numeracy	47	1.42544	3.49131	0.33798	661.00829	20.29666	9
9	Numeracy	48	1.54050	3.60006	0.34343	667.53903	20.62395	9
9	Numeracy	49	1.65941	3.71246	0.34948	674.28897	20.98727	9
9	Numeracy	50	1.78270	3.82899	0.35628	681.28693	21.39563	9
9	Numeracy	51	1.91103	3.95029	0.36396	688.57134	21.85683	10
9	Numeracy	52	2.04515	4.07706	0.37268	696.18424	22.38049	10
9	Numeracy	53	2.18605	4.21024	0.38267	704.18208	22.98042	10
9	Numeracy	54	2.33493	4.35096	0.39423	712.63272	23.67463	10
9	Numeracy	55	2.49336	4.50071	0.40776	721.62563	24.48715	10
9	Numeracy	56	2.66342	4.66145	0.42385	731.27853	25.45340	10
9	Numeracy	57	2.84796	4.83588	0.44332	741.75354	26.62263	10
9	Numeracy	58	3.05103	5.02782	0.46743	753.28009	28.07050	10
9	Numeracy	59	3.27865	5.24296	0.49853	766.19986	29.93815	10
9	Numeracy	60	3.54054	5.49050	0.54010	781.06534	32.43454	10
9	Numeracy	61	3.85372	5.78652	0.59956	798.84218	36.00528	10
9	Numeracy	62	4.25271	6.16365	0.69369	821.48991	41.65806	10
9	Numeracy	63	4.82667	6.70615	0.87431	854.06858	52.50480	10
9	Numeracy	64	5.98889	7.80468	1.47686	920.03843	88.68965	10

TABLE 16 Year 9 Non-Calculator Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
9	NC	0	-5.00653	-2.58819	1.51235	295.91701	90.82092	5
9	NC	1	-3.79903	-1.44686	0.90025	364.45712	54.06258	5
9	NC	2	-3.19077	-0.87193	0.71623	398.98331	43.01165	5
9	NC	3	-2.76471	-0.46922	0.62120	423.16719	37.30483	5
9	NC	4	-2.42886	-0.15177	0.56159	442.23096	33.72508	5
9	NC	5	-2.14649	0.11512	0.52075	458.25847	31.27252	5
9	NC	6	-1.89900	0.34905	0.49135	472.30663	29.50697	5
9	NC	7	-1.67571	0.56010	0.46925	484.98078	28.17980	6
9	NC	8	-1.46969	0.75483	0.45261	496.67487	27.18052	6
9	NC	9	-1.27636	0.93757	0.43982	507.64893	26.41244	6
9	NC	10	-1.09228	1.11156	0.43020	518.09753	25.83473	6
9	NC	11	-0.91499	1.27914	0.42304	528.16118	25.40476	6
9	NC	12	-0.74250	1.44217	0.41796	537.95160	25.09969	7
9	NC	13	-0.57318	1.60221	0.41466	547.56245	24.90151	7
9	NC	14	-0.40569	1.76053	0.41293	557.07002	24.79762	7
9	NC	15	-0.23882	1.91825	0.41263	566.54156	24.77961	7
9	NC	16	-0.07147	2.07643	0.41368	576.04072	24.84266	7
9	NC	17	0.09743	2.23608	0.41606	585.62815	24.98559	8
9	NC	18	0.26892	2.39817	0.41977	595.36212	25.20838	8
9	NC	19	0.44413	2.56378	0.42488	605.30747	25.51525	8
9	NC	20	0.62429	2.73406	0.43152	615.53327	25.91400	8
9	NC	21	0.81082	2.91037	0.43988	626.12119	26.41605	8
9	NC	22	1.00539	3.09428	0.45025	637.16551	27.03879	9
9	NC	23	1.21013	3.28780	0.46301	648.78693	27.80507	9
9	NC	24	1.42773	3.49347	0.47870	661.13800	28.74730	9
9	NC	25	1.66176	3.71468	0.49833	674.42229	29.92613	9
9	NC	26	1.91724	3.95616	0.52311	688.92385	31.41424	10
9	NC	27	2.20143	4.22478	0.55517	705.05525	33.33954	10
9	NC	28	2.52551	4.53110	0.59815	723.45064	35.92061	10
9	NC	29	2.90818	4.89280	0.65906	745.17175	39.57843	10
9	NC	30	3.38517	5.34365	0.75466	772.24658	45.31948	10
9	NC	31	4.04522	5.96753	0.93739	809.71235	56.29294	10
9	NC	32	5.29825	7.15189	1.55215	880.83654	93.21103	10

TABLE 17 Year 9 Calculator Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
9	CA	0	-5.42305	-2.98188	1.54044	272.27480	92.50781	5
9	CA	1	-4.18653	-1.81312	0.92845	342.46217	55.75607	5
9	CA	2	-3.54075	-1.20273	0.74765	379.11782	44.89851	5
9	CA	3	-3.07447	-0.76200	0.65372	405.58491	39.25775	5
9	CA	4	-2.69891	-0.40703	0.59470	426.90187	35.71343	5
9	CA	5	-2.37914	-0.10478	0.55356	445.05285	33.24285	5
9	CA	6	-2.09702	0.16188	0.52333	461.06654	31.42746	5
9	CA	7	-1.84157	0.40333	0.50067	475.56630	30.06666	5
9	CA	8	-1.60565	0.62632	0.48317	488.95748	29.01573	6
9	CA	9	-1.38416	0.83568	0.46968	501.53015	28.20562	6
9	CA	10	-1.17334	1.03494	0.45937	513.49628	27.58648	6
9	CA	11	-0.97036	1.22680	0.45163	525.01802	27.12167	6
9	CA	12	-0.77300	1.41334	0.44601	536.22027	26.78417	7
9	CA	13	-0.57947	1.59627	0.44218	547.20574	26.55417	7
9	CA	14	-0.38830	1.77696	0.43990	558.05669	26.41725	7
9	CA	15	-0.19824	1.95661	0.43896	568.84518	26.36080	7
9	CA	16	-0.00822	2.13621	0.43925	579.63067	26.37821	7
9	CA	17	0.18274	2.31671	0.44068	590.47021	26.46409	8
9	CA	18	0.37554	2.49894	0.44321	601.41364	26.61602	8
9	CA	19	0.57111	2.68380	0.44686	612.51501	26.83521	8
9	CA	20	0.77039	2.87216	0.45174	623.82657	27.12827	8
9	CA	21	0.97449	3.06507	0.45796	635.41136	27.50180	9
9	CA	22	1.18469	3.26375	0.46578	647.34266	27.97141	9
9	CA	23	1.40261	3.46973	0.47554	659.71235	28.55753	9
9	CA	24	1.63030	3.68494	0.48778	672.63632	29.29258	9
9	CA	25	1.87055	3.91203	0.50328	686.27372	30.22340	10
9	CA	26	2.12731	4.15472	0.52334	700.84795	31.42806	10
9	CA	27	2.40647	4.41858	0.55011	716.69349	33.03567	10
9	CA	28	2.71757	4.71263	0.58734	734.35203	35.27144	10
9	CA	29	3.07758	5.05291	0.64218	754.78681	38.56474	10
9	CA	30	3.52082	5.47186	0.73188	779.94595	43.95148	10
9	CA	31	4.13631	6.05362	0.90941	814.88230	54.61266	10
9	CA	32	5.33763	7.18911	1.51328	883.07170	90.87677	10

TABLE 18 Year 9 Reading Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
9	Reading	0	-5.48849	-3.36243	1.48468	195.61243	99.86413	5
9	Reading	1	-4.31627	-2.24156	0.87958	271.00558	59.16325	5
9	Reading	2	-3.73452	-1.68529	0.69855	308.42201	46.98661	5
9	Reading	3	-3.32953	-1.29804	0.60378	334.46963	40.61209	5
9	Reading	4	-3.01157	-0.99400	0.54393	354.92029	36.58640	5
9	Reading	5	-2.74577	-0.73984	0.50204	372.01587	33.76875	5
9	Reading	6	-2.51485	-0.51904	0.47082	386.86756	31.66880	5
9	Reading	7	-2.30895	-0.32216	0.44644	400.11031	30.02892	5
9	Reading	8	-2.12188	-0.14328	0.42683	412.14233	28.70989	5
9	Reading	9	-1.94949	0.02156	0.41069	423.22997	27.62427	5
9	Reading	10	-1.78886	0.17515	0.39718	433.56091	26.71554	5
9	Reading	11	-1.63786	0.31954	0.38571	443.27302	25.94404	5
9	Reading	12	-1.49487	0.45627	0.37581	452.46990	25.27813	5
9	Reading	13	-1.35858	0.58659	0.36738	461.23562	24.71111	5
9	Reading	14	-1.22800	0.71145	0.36004	469.63409	24.21739	5
9	Reading	15	-1.10229	0.83165	0.35365	477.71911	23.78758	5
9	Reading	16	-0.98074	0.94788	0.34810	485.53710	23.41427	6
9	Reading	17	-0.86275	1.06070	0.34329	493.12571	23.09074	6
9	Reading	18	-0.74780	1.17061	0.33914	500.51860	22.81160	6
9	Reading	19	-0.63544	1.27805	0.33561	507.74534	22.57416	6
9	Reading	20	-0.52525	1.38342	0.33264	514.83285	22.37439	6
9	Reading	21	-0.41684	1.48708	0.33021	521.80534	22.21094	6
9	Reading	22	-0.30989	1.58934	0.32828	528.68366	22.08112	6
9	Reading	23	-0.20404	1.69056	0.32683	535.49203	21.98359	7
9	Reading	24	-0.09900	1.79100	0.32586	542.24793	21.91834	7
9	Reading	25	0.00554	1.89096	0.32536	548.97155	21.88471	7
9	Reading	26	0.10990	1.99075	0.32533	555.68373	21.88269	7
9	Reading	27	0.21436	2.09063	0.32578	562.40196	21.91296	7
9	Reading	28	0.31925	2.19093	0.32671	569.14845	21.97552	7
9	Reading	29	0.42488	2.29193	0.32815	575.94202	22.07238	7
9	Reading	30	0.53159	2.39397	0.33013	582.80554	22.20556	8
9	Reading	31	0.63976	2.49740	0.33268	589.76256	22.37708	8
9	Reading	32	0.74978	2.60260	0.33585	596.83864	22.59030	8
9	Reading	33	0.86210	2.71000	0.33969	604.06269	22.84859	8
9	Reading	34	0.97721	2.82007	0.34428	611.46633	23.15733	8
9	Reading	35	1.09570	2.93337	0.34971	619.08724	23.52257	8
9	Reading	36	1.21823	3.05053	0.35609	626.96778	23.95171	8
9	Reading	37	1.34560	3.17232	0.36355	635.15975	24.45349	9
9	Reading	38	1.47875	3.29964	0.37228	643.72368	25.04069	9
9	Reading	39	1.61885	3.43361	0.38257	652.73492	25.73283	9
9	Reading	40	1.76738	3.57563	0.39471	662.28762	26.54940	9
9	Reading	41	1.92620	3.72749	0.40915	672.50219	27.52068	9
9	Reading	42	2.09780	3.89158	0.42652	683.53938	28.68904	9
9	Reading	43	2.28553	4.07109	0.44770	695.61378	30.11367	10
9	Reading	44	2.49410	4.27052	0.47401	709.02805	31.88337	10

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
9	Reading	45	2.73047	4.49654	0.50755	724.23085	34.13937	10
9	Reading	46	3.00546	4.75948	0.55234	741.91700	37.15208	10
9	Reading	47	3.33763	5.07710	0.61540	763.28109	41.39369	10
9	Reading	48	3.76317	5.48400	0.71365	790.65043	48.00229	10
9	Reading	49	4.37287	6.06700	0.89910	829.86480	60.47622	10
9	Reading	50	5.58069	7.22192	1.51181	907.54826	101.68898	10

TABLE 19 Year 9 Spelling Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
9	Spelling	0	-6.05218	-3.87516	1.60151	316.47955	61.03083	5
9	Spelling	1	-4.73527	-2.47410	0.97612	369.87158	37.19828	5
9	Spelling	2	-4.02113	-1.71432	0.79378	398.82550	30.24961	5
9	Spelling	3	-3.49318	-1.15264	0.70164	420.23017	26.73831	5
9	Spelling	4	-3.05753	-0.68915	0.64489	437.89299	24.57566	5
9	Spelling	5	-2.67721	-0.28453	0.60561	453.31237	23.07877	5
9	Spelling	6	-2.33463	0.07994	0.57630	467.20171	21.96182	5
9	Spelling	7	-2.02039	0.41426	0.55326	479.94208	21.08380	6
9	Spelling	8	-1.72856	0.72474	0.53477	491.77394	20.37918	6
9	Spelling	9	-1.45469	1.01611	0.51984	502.87756	19.81022	6
9	Spelling	10	-1.19500	1.29239	0.50802	513.40612	19.35978	6
9	Spelling	11	-0.94611	1.55719	0.49902	523.49720	19.01681	6
9	Spelling	12	-0.70502	1.81368	0.49260	533.27160	18.77215	7
9	Spelling	13	-0.46904	2.06474	0.48854	542.83907	18.61743	7
9	Spelling	14	-0.23579	2.31290	0.48666	552.29603	18.54579	7
9	Spelling	15	-0.00309	2.56047	0.48679	561.73050	18.55074	7
9	Spelling	16	0.23101	2.80953	0.48879	571.22175	18.62696	7
9	Spelling	17	0.46834	3.06202	0.49253	580.84372	18.76948	7
9	Spelling	18	0.71057	3.31973	0.49790	590.66461	18.97412	8
9	Spelling	19	0.95924	3.58429	0.50485	600.74654	19.23898	8
9	Spelling	20	1.21584	3.85729	0.51342	611.15011	19.56557	8
9	Spelling	21	1.48193	4.14038	0.52381	621.93819	19.96151	8
9	Spelling	22	1.75944	4.43562	0.53647	633.18928	20.44396	8
9	Spelling	23	2.05109	4.74591	0.55219	645.01391	21.04302	9
9	Spelling	24	2.36098	5.07560	0.57233	657.57784	21.81053	9
9	Spelling	25	2.69546	5.43146	0.59900	671.13906	22.82687	9
9	Spelling	26	3.06461	5.82419	0.63586	686.10533	24.23155	10
9	Spelling	27	3.48552	6.27200	0.68991	703.17061	26.29130	10
9	Spelling	28	3.99173	6.81056	0.77817	723.69422	29.65474	10
9	Spelling	29	4.67015	7.53233	0.95393	751.19965	36.35265	10
9	Spelling	30	5.93107	8.87382	1.56360	802.32156	59.58614	10

TABLE 20 Year 9 Grammar & Punctuation Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
9	GP	0	-4.93209	-3.11005	1.53219	179.31275	112.61963	5
9	GP	1	-3.70575	-1.93129	0.92098	265.95443	67.69423	5
9	GP	2	-3.07085	-1.32102	0.74050	310.81073	54.42852	5
9	GP	3	-2.61456	-0.88244	0.64705	343.04741	47.55972	5
9	GP	4	-2.24733	-0.52946	0.58865	368.99228	43.26718	5
9	GP	5	-1.93426	-0.22853	0.54801	391.11136	40.28004	5
9	GP	6	-1.65766	0.03733	0.51802	410.65270	38.07571	5
9	GP	7	-1.40708	0.27819	0.49538	428.35649	36.41161	5
9	GP	8	-1.17588	0.50042	0.47768	444.69092	35.11062	5
9	GP	9	-0.95934	0.70856	0.46383	459.98971	34.09261	5
9	GP	10	-0.75397	0.90596	0.45307	474.49908	33.30173	5
9	GP	11	-0.55702	1.09527	0.44492	488.41382	32.70268	6
9	GP	12	-0.36626	1.27863	0.43905	501.89122	32.27122	6
9	GP	13	-0.17977	1.45788	0.43526	515.06652	31.99265	6
9	GP	14	0.00420	1.63471	0.43344	528.06395	31.85888	6
9	GP	15	0.18731	1.81072	0.43358	541.00110	31.86917	7
9	GP	16	0.37124	1.98751	0.43575	553.99559	32.02867	7
9	GP	17	0.55776	2.16680	0.44011	567.17383	32.34914	7
9	GP	18	0.74887	2.35049	0.44693	580.67549	32.85042	7
9	GP	19	0.94694	2.54088	0.45666	594.66961	33.56560	8
9	GP	20	1.15496	2.74082	0.46996	609.36567	34.54318	8
9	GP	21	1.37694	2.95419	0.48771	625.04888	35.84785	8
9	GP	22	1.61836	3.18624	0.51160	642.10511	37.60382	9
9	GP	23	1.88759	3.44503	0.54417	661.12679	39.99779	9
9	GP	24	2.19815	3.74354	0.58995	683.06799	43.36273	9
9	GP	25	2.57421	4.10501	0.65759	709.63690	48.33444	10
9	GP	26	3.06501	4.57676	0.76652	744.31165	56.34105	10
9	GP	27	3.78894	5.27261	0.97434	795.45829	71.61632	10
9	GP	28	5.18305	6.61262	1.63919	893.95222	120.48438	10

TABLE 21 **Years 3, 5, 7, and 9 Persuasive Writing Score Equivalence Table**

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
3579	Writing	0	-12.539	-12.540	1.763	94.52478	52.30000	1
3579	Writing	1	-10.960	-10.960	1.078	141.43828	32.00000	1
3579	Writing	2	-10.075	-10.070	0.869	167.86425	25.80000	1
3579	Writing	3	-9.450	-9.450	0.770	186.27335	22.90000	1
3579	Writing	4	-8.933	-8.933	0.719	201.62416	21.30000	1
3579	Writing	5	-8.463	-8.463	0.694	215.57944	20.60000	1
3579	Writing	6	-8.008	-8.008	0.684	229.08934	20.30000	1
3579	Writing	7	-7.551	-7.551	0.685	242.65863	20.30000	1
3579	Writing	8	-7.083	-7.083	0.690	256.55453	20.50000	1
3579	Writing	9	-6.600	-6.600	0.695	270.89581	20.60000	2
3579	Writing	10	-6.110	-6.110	0.698	285.44494	20.70000	2
3579	Writing	11	-5.622	-5.622	0.698	299.93468	20.70000	2
3579	Writing	12	-5.136	-5.136	0.699	314.36503	20.80000	2
3579	Writing	13	-4.647	-4.647	0.702	328.88447	20.80000	3
3579	Writing	14	-4.151	-4.151	0.705	343.61175	20.90000	3
3579	Writing	15	-3.649	-3.649	0.705	358.51718	20.90000	3
3579	Writing	16	-3.146	-3.146	0.700	373.45230	20.80000	3
3579	Writing	17	-2.655	-2.655	0.690	388.03112	20.50000	4
3579	Writing	18	-2.185	-2.185	0.678	401.98640	20.10000	4
3579	Writing	19	-1.735	-1.735	0.666	415.34784	19.80000	4
3579	Writing	20	-1.300	-1.300	0.657	428.26390	19.50000	5
3579	Writing	21	-0.875	-0.875	0.650	440.88304	19.30000	5
3579	Writing	22	-0.457	-0.457	0.643	453.29434	19.10000	5
3579	Writing	23	-0.047	-0.047	0.637	465.46810	18.90000	5
3579	Writing	24	0.354	0.354	0.631	477.37463	18.70000	5
3579	Writing	25	0.747	0.747	0.626	489.04362	18.60000	6
3579	Writing	26	1.134	1.134	0.622	500.53446	18.50000	6
3579	Writing	27	1.516	1.516	0.620	511.87684	18.40000	6
3579	Writing	28	1.897	1.897	0.621	523.18952	18.40000	6
3579	Writing	29	2.280	2.280	0.624	534.56160	18.50000	7
3579	Writing	30	2.671	2.671	0.629	546.17120	18.70000	7
3579	Writing	31	3.071	3.071	0.634	558.04804	18.80000	7
3579	Writing	32	3.482	3.482	0.637	570.25149	18.90000	7
3579	Writing	33	3.894	3.894	0.636	582.48463	18.90000	8
3579	Writing	34	4.300	4.300	0.631	594.53962	18.70000	8
3579	Writing	35	4.694	4.694	0.625	606.23831	18.60000	8
3579	Writing	36	5.078	5.078	0.621	617.64007	18.40000	8
3579	Writing	37	5.456	5.456	0.620	628.86368	18.40000	8
3579	Writing	38	5.835	5.835	0.623	640.11699	18.50000	9
3579	Writing	39	6.222	6.222	0.631	651.60783	18.70000	9
3579	Writing	40	6.623	6.623	0.641	663.51436	19.00000	9
3579	Writing	41	7.042	7.042	0.653	675.95534	19.40000	9
3579	Writing	42	7.475	7.475	0.665	688.81202	19.70000	10
3579	Writing	43	7.920	7.920	0.680	702.02500	20.20000	10
3579	Writing	44	8.381	8.381	0.702	715.71306	20.90000	10

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
3579	Writing	45	8.874	8.874	0.743	730.35126	22.10000	10
3579	Writing	46	9.436	9.436	0.820	747.03821	24.30000	10
3579	Writing	47	10.159	10.159	0.988	768.50560	29.30000	10
3579	Writing	48	11.461	11.461	1.599	807.16470	47.50000	10