

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	-5.34740	-7.97696	1.52918	-27.69397	91.83161	1
3	Numeracy	1	-4.12321	-6.40938	0.91843	66.44367	55.15434	1
3	Numeracy	2	-3.49142	-5.60037	0.73733	115.02702	44.27877	1
3	Numeracy	3	-3.03865	-5.02060	0.64362	149.84386	38.65121	1
3	Numeracy	4	-2.67531	-4.55535	0.58458	177.78345	35.10569	1
3	Numeracy	5	-2.36639	-4.15977	0.54322	201.53915	32.62191	1
3	Numeracy	6	-2.09433	-3.81140	0.51241	222.45976	30.77168	1
3	Numeracy	7	-1.84896	-3.49720	0.48850	241.32837	29.33582	1
3	Numeracy	8	-1.62377	-3.20885	0.46941	258.64461	28.18941	1
3	Numeracy	9	-1.41430	-2.94062	0.45391	274.75258	27.25859	2
3	Numeracy	10	-1.21730	-2.68836	0.44121	289.90151	26.49592	2
3	Numeracy	11	-1.03033	-2.44895	0.43070	304.27877	25.86476	2
3	Numeracy	12	-0.85146	-2.21991	0.42204	318.03327	25.34470	2
3	Numeracy	13	-0.67913	-1.99924	0.41496	331.28513	24.91953	3
3	Numeracy	14	-0.51203	-1.78527	0.40927	344.13464	24.57783	3
3	Numeracy	15	-0.34906	-1.57658	0.40483	356.66707	24.31119	3
3	Numeracy	16	-0.18920	-1.37188	0.40156	368.95988	24.11482	3
3	Numeracy	17	-0.03156	-1.17002	0.39940	381.08215	23.98511	4
3	Numeracy	18	0.12471	-0.96992	0.39831	393.09873	23.91965	4
3	Numeracy	19	0.28047	-0.77047	0.39833	405.07627	23.92085	4
3	Numeracy	20	0.43658	-0.57057	0.39946	417.08083	23.98871	4
3	Numeracy	21	0.59394	-0.36907	0.40180	429.18148	24.12923	5
3	Numeracy	22	0.75354	-0.16470	0.40544	441.45448	24.34783	5
3	Numeracy	23	0.91649	0.04395	0.41053	453.98451	24.65350	5
3	Numeracy	24	1.08407	0.25854	0.41730	466.87125	25.06005	5
3	Numeracy	25	1.25783	0.48104	0.42604	480.23301	25.58491	6
3	Numeracy	26	1.43967	0.71389	0.43716	494.21631	26.25270	6
3	Numeracy	27	1.63207	0.96025	0.45124	509.01093	27.09825	6
3	Numeracy	28	1.83831	1.22435	0.46908	524.87089	28.16959	6
3	Numeracy	29	2.06293	1.51197	0.49210	542.14329	29.55201	6
3	Numeracy	30	2.31269	1.83179	0.52248	561.34939	31.37641	6
3	Numeracy	31	2.59820	2.19738	0.56401	583.30411	33.87041	6
3	Numeracy	32	2.93784	2.63229	0.62402	609.42169	37.47418	6
3	Numeracy	33	3.36807	3.18320	0.71934	642.50540	43.19841	6
3	Numeracy	34	3.98058	3.96752	0.90296	689.60605	54.22532	6
3	Numeracy	35	5.19171	5.51837	1.51558	782.73901	91.01489	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	-5.30327	-7.47760	1.50320	-81.18652	101.10984	1
3	Reading	1	-4.11024	-5.95649	0.89669	21.12800	60.31412	1
3	Reading	2	-3.50800	-5.18863	0.71616	72.77662	48.17112	1
3	Reading	3	-3.08256	-4.64620	0.62270	109.26212	41.88471	1
3	Reading	4	-2.74406	-4.21461	0.56441	138.29219	37.96395	1
3	Reading	5	-2.45761	-3.84939	0.52382	162.85801	35.23374	1
3	Reading	6	-2.20577	-3.52829	0.49385	184.45618	33.21787	1
3	Reading	7	-1.97860	-3.23865	0.47076	203.93825	31.66476	1
3	Reading	8	-1.76988	-2.97253	0.45242	221.83830	30.43116	1
3	Reading	9	-1.57547	-2.72466	0.43753	238.51080	29.42961	1
3	Reading	10	-1.39244	-2.49129	0.42522	254.20798	28.60160	1
3	Reading	11	-1.21863	-2.26969	0.41496	269.11347	27.91148	1
3	Reading	12	-1.05241	-2.05776	0.40631	283.36853	27.32966	2
3	Reading	13	-0.89250	-1.85387	0.39900	297.08280	26.83796	2
3	Reading	14	-0.73783	-1.65667	0.39284	310.34708	26.42362	2
3	Reading	15	-0.58752	-1.46502	0.38770	323.23804	26.07789	3
3	Reading	16	-0.44082	-1.27798	0.38345	335.81893	25.79202	3
3	Reading	17	-0.29702	-1.09463	0.38007	348.15161	25.56467	3
3	Reading	18	-0.15556	-0.91427	0.37743	360.28318	25.38710	3
3	Reading	19	-0.01580	-0.73608	0.37558	372.26878	25.26266	3
3	Reading	20	0.12278	-0.55939	0.37448	384.15349	25.18867	4
3	Reading	21	0.26074	-0.38349	0.37415	395.98507	25.16648	4
3	Reading	22	0.39866	-0.20764	0.37461	407.81328	25.19742	4
3	Reading	23	0.53711	-0.03112	0.37590	419.68655	25.28419	4
3	Reading	24	0.67674	0.14691	0.37810	431.66140	25.43217	5
3	Reading	25	0.81825	0.32734	0.38129	443.79767	25.64673	5
3	Reading	26	0.96243	0.51117	0.38560	456.16264	25.93664	5
3	Reading	27	1.11019	0.69956	0.39118	468.83433	26.31197	5
3	Reading	28	1.26265	0.89395	0.39827	481.90960	26.78886	6
3	Reading	29	1.42114	1.09602	0.40717	495.50145	27.38750	6
3	Reading	30	1.58736	1.30795	0.41826	509.75651	28.13345	6
3	Reading	31	1.76353	1.53257	0.43212	524.86514	29.06572	6
3	Reading	32	1.95263	1.77367	0.44952	541.08226	30.23609	6
3	Reading	33	2.15879	2.03652	0.47200	558.76236	31.74817	6
3	Reading	34	2.38825	2.32909	0.50155	578.44151	33.73579	6
3	Reading	35	2.65088	2.66394	0.54193	600.96455	36.45187	6
3	Reading	36	2.96394	3.06309	0.60035	627.81261	40.38138	6
3	Reading	37	3.36219	3.57086	0.69354	661.96677	46.64963	6
3	Reading	38	3.93507	4.30128	0.87377	711.09706	58.77245	6
3	Reading	39	5.09626	5.78180	1.47584	810.68137	99.26952	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	-6.69157	-8.15869	1.71604	153.24149	65.39537	1
3	Spelling	1	-5.22304	-6.68252	1.09058	209.49583	41.56015	1
3	Spelling	2	-4.30067	-5.75536	0.91121	244.82832	34.72467	1
3	Spelling	3	-3.57458	-5.02549	0.80870	272.64243	30.81819	2
3	Spelling	4	-2.98334	-4.43118	0.73712	295.29058	28.09039	2
3	Spelling	5	-2.48430	-3.92954	0.68410	314.40723	26.06989	2
3	Spelling	6	-2.04989	-3.49287	0.64397	331.04798	24.54060	3
3	Spelling	7	-1.66184	-3.10280	0.61360	345.91288	23.38326	3
3	Spelling	8	-1.30692	-2.74604	0.59081	359.50840	22.51477	3
3	Spelling	9	-0.97526	-2.41265	0.57411	372.21333	21.87836	3
3	Spelling	10	-0.65952	-2.09527	0.56238	384.30814	21.43135	4
3	Spelling	11	-0.35416	-1.78832	0.55476	396.00549	21.14096	4
3	Spelling	12	-0.05485	-1.48746	0.55063	407.47075	20.98358	4
3	Spelling	13	0.24199	-1.18907	0.54961	418.84189	20.94470	4
3	Spelling	14	0.53950	-0.89002	0.55153	430.23818	21.01787	5
3	Spelling	15	0.84077	-0.58718	0.55642	441.77890	21.20422	5
3	Spelling	16	1.14916	-0.27719	0.56448	453.59209	21.51138	5
3	Spelling	17	1.46854	0.04385	0.57611	465.82638	21.95457	5
3	Spelling	18	1.80357	0.38063	0.59187	478.66049	22.55516	6
3	Spelling	19	2.15981	0.73872	0.61264	492.30670	23.34667	6
3	Spelling	20	2.54419	1.12510	0.63995	507.03098	24.38741	6
3	Spelling	21	2.96649	1.54959	0.67733	523.20758	25.81190	6
3	Spelling	22	3.44394	2.02953	0.73212	541.49728	27.89985	6
3	Spelling	23	4.01299	2.60154	0.82178	563.29561	31.31664	6
3	Spelling	24	4.76638	3.35884	1.00162	592.15502	38.17004	6
3	Spelling	25	6.11731	4.71680	1.62881	643.90458	62.07119	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	-4.60728	-5.33720	1.51149	15.61191	111.09813	1
3	GP	1	-3.40696	-4.05598	0.90550	109.78464	66.55641	1
3	GP	2	-2.79476	-3.40251	0.72614	157.81624	53.37302	1
3	GP	3	-2.35747	-2.93575	0.63432	192.12422	46.62404	1
3	GP	4	-2.00607	-2.56067	0.57730	219.69350	42.43293	1
3	GP	5	-1.70600	-2.24037	0.53812	243.23631	39.55311	1
3	GP	6	-1.43997	-1.95641	0.50978	264.10805	37.47005	1
3	GP	7	-1.19802	-1.69815	0.48839	283.09078	35.89783	2
3	GP	8	-0.97359	-1.45860	0.47223	300.69827	34.71003	2
3	GP	9	-0.76219	-1.23295	0.45991	317.28409	33.80448	2
3	GP	10	-0.56037	-1.01753	0.45080	333.11797	33.13488	3
3	GP	11	-0.36541	-0.80943	0.44440	348.41382	32.66446	3
3	GP	12	-0.17501	-0.60619	0.44043	363.35244	32.37266	3
3	GP	13	0.01287	-0.40565	0.43874	378.09261	32.24844	4
3	GP	14	0.20018	-0.20571	0.43930	392.78868	32.28960	4
3	GP	15	0.38883	-0.00435	0.44215	407.58912	32.49908	4
3	GP	16	0.58090	0.20067	0.44750	422.65858	32.89232	4
3	GP	17	0.77871	0.41181	0.45565	438.17788	33.49136	5
3	GP	18	0.98507	0.63208	0.46715	454.36825	34.33664	5
3	GP	19	1.20351	0.86524	0.48278	471.50606	35.48548	5
3	GP	20	1.43887	1.11646	0.50364	489.97133	37.01874	6
3	GP	21	1.69785	1.39290	0.53203	510.29033	39.10548	6
3	GP	22	1.99101	1.70582	0.57148	533.29070	42.00515	6
3	GP	23	2.33616	2.07423	0.62936	560.36972	46.25946	6
3	GP	24	2.76869	2.53591	0.72206	594.30430	53.07313	6
3	GP	25	3.37817	3.18647	0.90267	642.12201	66.34840	6
3	GP	26	4.57819	4.46737	1.51000	736.27122	110.98861	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	-5.53472	-4.96975	1.52161	152.89755	91.37701	3
5	Numeracy	1	-4.31850	-3.79147	0.91088	223.65662	54.70094	3
5	Numeracy	2	-3.69615	-3.18854	0.72885	259.86428	43.76952	3
5	Numeracy	3	-3.25394	-2.76013	0.63409	285.59152	38.07891	3
5	Numeracy	4	-2.90174	-2.41892	0.57439	306.08215	34.49375	3
5	Numeracy	5	-2.60415	-2.13061	0.53256	323.39599	31.98174	3
5	Numeracy	6	-2.34333	-1.87793	0.50142	338.57014	30.11170	3
5	Numeracy	7	-2.10893	-1.65084	0.47727	352.20754	28.66142	3
5	Numeracy	8	-1.89440	-1.44300	0.45800	364.68893	27.50420	3
5	Numeracy	9	-1.69528	-1.25010	0.44231	376.27312	26.56197	4
5	Numeracy	10	-1.50843	-1.06908	0.42935	387.14389	25.78369	4
5	Numeracy	11	-1.33148	-0.89765	0.41857	397.43875	25.13632	4
5	Numeracy	12	-1.16263	-0.73407	0.40953	407.26219	24.59344	4
5	Numeracy	13	-1.00044	-0.57694	0.40195	416.69829	24.13824	4
5	Numeracy	14	-0.84372	-0.42511	0.39564	425.81612	23.75931	4
5	Numeracy	15	-0.69148	-0.27762	0.39043	434.67331	23.44643	5
5	Numeracy	16	-0.54288	-0.13365	0.38620	443.31912	23.19241	5
5	Numeracy	17	-0.39711	0.00757	0.38293	451.79978	22.99604	5
5	Numeracy	18	-0.25354	0.14666	0.38049	460.15253	22.84951	5
5	Numeracy	19	-0.11151	0.28426	0.37887	468.41581	22.75222	5
5	Numeracy	20	0.02958	0.42095	0.37803	476.62443	22.70178	5
5	Numeracy	21	0.17032	0.55730	0.37797	484.81264	22.69817	6
5	Numeracy	22	0.31129	0.69387	0.37871	493.01405	22.74261	6
5	Numeracy	23	0.45307	0.83122	0.38025	501.26231	22.83509	6
5	Numeracy	24	0.59630	0.96999	0.38265	509.59584	22.97922	6
5	Numeracy	25	0.74164	1.11079	0.38595	518.05129	23.17740	6
5	Numeracy	26	0.88984	1.25437	0.39026	526.67367	23.43622	6
5	Numeracy	27	1.04172	1.40151	0.39568	535.50985	23.76171	7
5	Numeracy	28	1.19824	1.55315	0.40236	544.61626	24.16286	7
5	Numeracy	29	1.36054	1.71038	0.41050	554.05837	24.65169	7
5	Numeracy	30	1.53001	1.87456	0.42038	563.91785	25.24502	7
5	Numeracy	31	1.70837	2.04736	0.43237	574.29498	25.96505	7
5	Numeracy	32	1.89784	2.23092	0.44705	585.31828	26.84663	8
5	Numeracy	33	2.10139	2.42812	0.46527	597.16070	27.94079	8
5	Numeracy	34	2.32320	2.64301	0.48828	610.06546	29.32260	8
5	Numeracy	35	2.56945	2.88157	0.51819	624.39166	31.11878	8
5	Numeracy	36	2.84991	3.15328	0.55871	640.70862	33.55213	8
5	Numeracy	37	3.18177	3.47479	0.61695	660.01621	37.04960	8
5	Numeracy	38	3.59959	3.87957	0.70994	684.32441	42.63392	8
5	Numeracy	39	4.19265	4.45413	0.88989	718.82837	53.44043	8
5	Numeracy	40	5.37436	5.59897	1.49415	787.57927	89.72796	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	-5.20883	-5.12989	1.50089	76.72765	100.95446	3
5	Reading	1	-4.01947	-3.81874	0.89603	164.91962	60.26972	3
5	Reading	2	-3.41801	-3.15569	0.71597	209.51840	48.15834	3
5	Reading	3	-2.99205	-2.68611	0.62231	241.10379	41.85848	3
5	Reading	4	-2.65303	-2.31237	0.56313	266.24269	37.87785	3
5	Reading	5	-2.36689	-1.99693	0.52147	287.46015	35.07567	3
5	Reading	6	-2.11672	-1.72115	0.49016	306.00995	32.96966	3
5	Reading	7	-1.89275	-1.47424	0.46566	322.61788	31.32172	3
5	Reading	8	-1.68870	-1.24930	0.44596	337.74803	29.99664	3
5	Reading	9	-1.50024	-1.04154	0.42982	351.72261	28.91101	3
5	Reading	10	-1.32421	-0.84748	0.41645	364.77568	28.01170	3
5	Reading	11	-1.15822	-0.66450	0.40533	377.08347	27.26374	4
5	Reading	12	-1.00040	-0.49052	0.39602	388.78590	26.63752	4
5	Reading	13	-0.84926	-0.32390	0.38825	399.99327	26.11489	4
5	Reading	14	-0.70355	-0.16327	0.38181	410.79774	25.68171	4
5	Reading	15	-0.56224	-0.00749	0.37656	421.27598	25.32858	4
5	Reading	16	-0.42443	0.14443	0.37239	431.49459	25.04809	5
5	Reading	17	-0.28936	0.29334	0.36916	441.51073	24.83083	5
5	Reading	18	-0.15631	0.44001	0.36685	451.37620	24.67546	5
5	Reading	19	-0.02461	0.58520	0.36541	461.14213	24.57860	5
5	Reading	20	0.10631	0.72952	0.36480	470.84953	24.53757	5
5	Reading	21	0.23709	0.87369	0.36503	480.54685	24.55304	6
5	Reading	22	0.36832	1.01836	0.36610	490.27780	24.62501	6
5	Reading	23	0.50061	1.16420	0.36805	500.08744	24.75617	6
5	Reading	24	0.63461	1.31192	0.37093	510.02354	24.94989	6
5	Reading	25	0.77104	1.46232	0.37481	520.13991	25.21087	6
5	Reading	26	0.91067	1.61625	0.37980	530.49371	25.54651	7
5	Reading	27	1.05443	1.77473	0.38606	541.15356	25.96758	7
5	Reading	28	1.20339	1.93894	0.39379	552.19883	26.48752	7
5	Reading	29	1.35885	2.11032	0.40326	563.72637	27.12450	7
5	Reading	30	1.52247	2.29070	0.41487	575.85929	27.90543	7
5	Reading	31	1.69640	2.48244	0.42912	588.75631	28.86393	8
5	Reading	32	1.88349	2.68868	0.44699	602.62864	30.06592	8
5	Reading	33	2.08784	2.91396	0.46971	617.78166	31.59413	8
5	Reading	34	2.31551	3.16494	0.49942	634.66335	33.59252	8
5	Reading	35	2.57621	3.45234	0.53983	653.99475	36.31062	8
5	Reading	36	2.88703	3.79499	0.59809	677.04244	40.22937	8
5	Reading	37	3.28245	4.23090	0.69118	706.36309	46.49089	8
5	Reading	38	3.85167	4.85841	0.87102	748.57133	58.58748	8
5	Reading	39	5.00807	6.13322	1.47200	834.31896	99.01123	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	-5.57194	-4.76753	1.60651	282.47285	61.22137	3
5	Spelling	1	-4.25329	-3.48462	0.98736	331.36237	37.62661	3
5	Spelling	2	-3.51882	-2.77005	0.80691	358.59342	30.74997	3
5	Spelling	3	-2.96750	-2.23367	0.71287	379.03395	27.16627	4
5	Spelling	4	-2.51543	-1.79385	0.65247	395.79475	24.86452	4
5	Spelling	5	-2.12701	-1.41596	0.61020	410.19550	23.25369	4
5	Spelling	6	-1.78195	-1.08025	0.57948	422.98883	22.08300	4
5	Spelling	7	-1.46722	-0.77405	0.55669	434.65760	21.21451	5
5	Spelling	8	-1.17390	-0.48868	0.53981	445.53256	20.57124	5
5	Spelling	9	-0.89565	-0.21797	0.52754	455.84886	20.10365	5
5	Spelling	10	-0.62780	0.04262	0.51894	465.77951	19.77592	5
5	Spelling	11	-0.36681	0.29654	0.51339	475.45597	19.56442	5
5	Spelling	12	-0.10984	0.54655	0.51049	484.98342	19.45391	6
5	Spelling	13	0.14555	0.79501	0.51002	494.45181	19.43600	6
5	Spelling	14	0.40164	1.04416	0.51195	503.94650	19.50955	6
5	Spelling	15	0.66078	1.29628	0.51641	513.55436	19.67951	6
5	Spelling	16	0.92560	1.55392	0.52370	523.37258	19.95732	6
5	Spelling	17	1.19920	1.82011	0.53436	533.51663	20.36355	7
5	Spelling	18	1.48549	2.09864	0.54924	544.13094	20.93060	7
5	Spelling	19	1.78983	2.39473	0.56964	555.41443	21.70801	7
5	Spelling	20	2.11998	2.71594	0.59807	567.65520	22.79143	7
5	Spelling	21	2.48854	3.07451	0.63875	581.31969	24.34168	7
5	Spelling	22	2.91794	3.49227	0.69999	597.23982	26.67543	8
5	Spelling	23	3.45342	4.01324	0.80000	617.09310	30.48664	8
5	Spelling	24	4.20229	4.74182	0.99489	644.85805	37.91357	8
5	Spelling	25	5.58764	6.08962	1.64283	696.22042	62.60546	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	-4.72124	-4.19389	1.53069	99.64792	112.50937	3
5	GP	1	-3.49247	-2.96266	0.91548	190.14627	67.28997	3
5	GP	2	-2.86426	-2.33320	0.73193	236.41308	53.79860	3
5	GP	3	-2.41932	-1.88737	0.63764	269.18265	46.86806	3
5	GP	4	-2.06507	-1.53241	0.57900	295.27306	42.55788	3
5	GP	5	-1.76431	-1.23105	0.53934	317.42374	39.64278	3
5	GP	6	-1.49831	-0.96451	0.51093	337.01507	37.55458	3
5	GP	7	-1.25598	-0.72170	0.49028	354.86218	36.03675	3
5	GP	8	-1.03042	-0.49569	0.47495	371.47446	34.90996	3
5	GP	9	-0.81672	-0.28156	0.46379	387.21352	34.08967	4
5	GP	10	-0.61130	-0.07573	0.45597	402.34252	33.51488	4
5	GP	11	-0.41138	0.12459	0.45095	417.06652	33.14590	4
5	GP	12	-0.21462	0.32174	0.44838	431.55752	32.95700	5
5	GP	13	-0.01894	0.51781	0.44809	445.96913	32.93569	5
5	GP	14	0.17755	0.71470	0.45001	460.44101	33.07681	5
5	GP	15	0.37683	0.91438	0.45418	475.11797	33.38331	5
5	GP	16	0.58094	1.11889	0.46074	490.14994	33.86549	6
5	GP	17	0.79218	1.33056	0.46998	505.70820	34.54465	6
5	GP	18	1.01327	1.55209	0.48238	521.99118	35.45608	6
5	GP	19	1.24770	1.78699	0.49861	539.25689	36.64903	7
5	GP	20	1.50000	2.03979	0.52004	557.83829	38.22418	7
5	GP	21	1.77684	2.31719	0.54848	578.22786	40.31459	7
5	GP	22	2.08843	2.62940	0.58782	601.17604	43.20617	8
5	GP	23	2.45255	2.99425	0.64516	627.99338	47.42080	8
5	GP	24	2.90454	3.44714	0.73760	661.28188	54.21536	8
5	GP	25	3.53458	4.07844	0.91820	707.68394	67.48989	8
5	GP	26	4.75717	5.30348	1.52864	797.72731	112.35869	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	-5.63169	-4.17312	1.45327	200.73745	87.27300	4
7	Numeracy	1	-4.49490	-3.00098	0.85335	271.12779	51.24610	4
7	Numeracy	2	-3.94573	-2.43473	0.67217	305.13272	40.36572	4
7	Numeracy	3	-3.57074	-2.04808	0.57743	328.35215	34.67632	4
7	Numeracy	4	-3.28071	-1.74903	0.51746	346.31095	31.07495	4
7	Numeracy	5	-3.04113	-1.50200	0.47540	361.14581	28.54912	4
7	Numeracy	6	-2.83490	-1.28935	0.44435	373.91605	26.68448	4
7	Numeracy	7	-2.65238	-1.10116	0.42014	385.21739	25.23060	4
7	Numeracy	8	-2.48754	-0.93119	0.40073	395.42457	24.06498	4
7	Numeracy	9	-2.33634	-0.77529	0.38483	404.78681	23.11014	4
7	Numeracy	10	-2.19596	-0.63054	0.37158	413.47946	22.31444	4
7	Numeracy	11	-2.06436	-0.49485	0.36039	421.62803	21.64245	4
7	Numeracy	12	-1.93999	-0.36661	0.35084	429.32921	21.06894	5
7	Numeracy	13	-1.82166	-0.24460	0.34256	436.65626	20.57170	5
7	Numeracy	14	-1.70841	-0.12783	0.33548	443.66863	20.14653	5
7	Numeracy	15	-1.59949	-0.01552	0.32930	450.41316	19.77540	5
7	Numeracy	16	-1.49429	0.09295	0.32388	456.92710	19.44992	5
7	Numeracy	17	-1.39228	0.19813	0.31913	463.24345	19.16466	5
7	Numeracy	18	-1.29303	0.30047	0.31497	469.38926	18.91485	5
7	Numeracy	19	-1.19617	0.40034	0.31132	475.38674	18.69565	5
7	Numeracy	20	-1.10137	0.49809	0.30814	481.25691	18.50468	6
7	Numeracy	21	-1.00835	0.59400	0.30537	487.01657	18.33834	6
7	Numeracy	22	-0.91685	0.68835	0.30297	492.68256	18.19421	6
7	Numeracy	23	-0.82666	0.78134	0.30092	498.26687	18.07110	6
7	Numeracy	24	-0.73757	0.87320	0.29919	503.78333	17.96721	6
7	Numeracy	25	-0.64940	0.96411	0.29775	509.24273	17.88074	6
7	Numeracy	26	-0.56198	1.05425	0.29659	514.65590	17.81107	6
7	Numeracy	27	-0.47514	1.14379	0.29569	520.03303	17.75703	6
7	Numeracy	28	-0.38873	1.23289	0.29504	525.38374	17.71799	6
7	Numeracy	29	-0.30262	1.32168	0.29464	530.71583	17.69397	7
7	Numeracy	30	-0.21666	1.41031	0.29447	536.03831	17.68376	7
7	Numeracy	31	-0.13072	1.49893	0.29453	541.36020	17.68736	7
7	Numeracy	32	-0.04467	1.58765	0.29481	546.68809	17.70418	7
7	Numeracy	33	0.04162	1.67663	0.29532	552.03159	17.73481	7
7	Numeracy	34	0.12828	1.76598	0.29606	557.39731	17.77925	7
7	Numeracy	35	0.21546	1.85587	0.29702	562.79546	17.83690	7
7	Numeracy	36	0.30329	1.94643	0.29820	568.23385	17.90776	7
7	Numeracy	37	0.39188	2.03778	0.29963	573.71967	17.99363	7
7	Numeracy	38	0.48141	2.13009	0.30130	579.26315	18.09392	7
7	Numeracy	39	0.57201	2.22351	0.30323	584.87329	18.20982	8
7	Numeracy	40	0.66386	2.31822	0.30542	590.56089	18.34134	8
7	Numeracy	41	0.75712	2.41438	0.30790	596.33558	18.49027	8
7	Numeracy	42	0.85197	2.51218	0.31068	602.20874	18.65722	8
7	Numeracy	43	0.94864	2.61185	0.31379	608.19421	18.84398	8
7	Numeracy	44	1.04733	2.71361	0.31726	614.30519	19.05237	8
7	Numeracy	45	1.14831	2.81773	0.32112	620.55789	19.28417	8
7	Numeracy	46	1.25187	2.92451	0.32542	626.97033	19.54240	8
7	Numeracy	47	1.35833	3.03428	0.33021	633.56233	19.83005	8
7	Numeracy	48	1.46807	3.14744	0.33555	640.35791	20.15073	9
7	Numeracy	49	1.58153	3.26443	0.34162	647.38350	20.51525	9

Year	Domain	Raw Score	Delta- Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
7	Numeracy	50	1.69926	3.38582	0.34840	654.67331	20.92241	9
7	Numeracy	51	1.82190	3.51227	0.35609	662.26699	21.38422	9
7	Numeracy	52	1.95022	3.64458	0.36485	670.21259	21.91028	9
7	Numeracy	53	2.08522	3.78378	0.37492	678.57194	22.51501	9
7	Numeracy	54	2.22812	3.93113	0.38662	687.42073	23.21763	9
7	Numeracy	55	2.38053	4.08828	0.40036	696.85804	24.04276	9
7	Numeracy	56	2.54460	4.25745	0.41672	707.01718	25.02522	9
7	Numeracy	57	2.72324	4.44164	0.43656	718.07831	26.21667	9
7	Numeracy	58	2.92062	4.64516	0.46113	730.30026	27.69217	9
7	Numeracy	59	3.14289	4.87434	0.49286	744.06318	29.59765	9
7	Numeracy	60	3.39999	5.13944	0.53518	759.98319	32.13908	9
7	Numeracy	61	3.70920	5.45827	0.59551	779.12983	35.76207	9
7	Numeracy	62	4.10535	5.86674	0.69058	803.65962	41.47129	9
7	Numeracy	63	4.67798	6.45718	0.87246	839.11722	52.39371	9
7	Numeracy	64	5.84085	7.65621	1.47635	911.12239	88.65902	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	-5.01665	-3.53896	1.49249	238.82056	89.62827	4
7	NC	1	-3.83819	-2.32385	0.89010	311.79138	53.45304	4
7	NC	2	-3.24667	-1.71393	0.71115	348.41881	42.70658	4
7	NC	3	-2.82854	-1.28280	0.61969	374.30939	37.21415	4
7	NC	4	-2.49458	-0.93845	0.56319	394.98859	33.82116	4
7	NC	5	-2.21023	-0.64526	0.52461	412.59548	31.50432	4
7	NC	6	-1.95824	-0.38543	0.49692	428.19902	29.84146	5
7	NC	7	-1.72886	-0.14892	0.47610	442.40211	28.59116	5
7	NC	8	-1.51574	0.07083	0.46037	455.59873	27.64653	5
7	NC	9	-1.31472	0.27810	0.44825	468.04588	26.91869	5
7	NC	10	-1.12268	0.47612	0.43900	479.93755	26.36320	6
7	NC	11	-0.93730	0.66726	0.43208	491.41605	25.94763	6
7	NC	12	-0.75672	0.85346	0.42709	502.59789	25.64797	6
7	NC	13	-0.57941	1.03628	0.42377	513.57675	25.44859	6
7	NC	14	-0.40405	1.21709	0.42193	524.43490	25.33810	6
7	NC	15	-0.22948	1.39709	0.42146	535.24442	25.30987	7
7	NC	16	-0.05460	1.57741	0.42225	546.07314	25.35731	7
7	NC	17	0.12159	1.75908	0.42430	556.98294	25.48042	7
7	NC	18	0.30016	1.94321	0.42757	568.04048	25.67680	7
7	NC	19	0.48212	2.13082	0.43211	579.30699	25.94944	7
7	NC	20	0.66857	2.32307	0.43799	590.85215	26.30255	8
7	NC	21	0.86073	2.52121	0.44537	602.75102	26.74574	8
7	NC	22	1.06000	2.72668	0.45448	615.09008	27.29282	8
7	NC	23	1.26809	2.94124	0.46567	627.97502	27.96481	8
7	NC	24	1.48725	3.16721	0.47950	641.54516	28.79534	9
7	NC	25	1.72050	3.40772	0.49676	655.98847	29.83185	9
7	NC	26	1.97214	3.66718	0.51904	671.56978	31.16983	9
7	NC	27	2.24880	3.95245	0.54834	688.70106	32.92938	9
7	NC	28	2.56098	4.27434	0.58858	708.03147	35.34590	9
7	NC	29	2.92720	4.65195	0.64700	730.70802	38.85419	9
7	NC	30	3.38405	5.12300	0.74087	758.99592	44.49135	9
7	NC	31	4.02356	5.78240	0.92379	798.59476	55.47622	9
7	NC	32	5.26215	7.05951	1.53918	875.28885	92.43214	9

TABLE 11 Year 7 Calculator Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered		Logit SE	Scale Score	Scale SE	Band
			Logit	Logit				
7	CA	0	-4.89794	-3.41656	1.48776	246.17103	89.34422	4
7	CA	1	-3.72445	-2.20657	0.88564	318.83437	53.18520	4
7	CA	2	-3.13845	-1.60235	0.70653	355.11951	42.42914	4
7	CA	3	-2.72616	-1.17723	0.61453	380.64917	36.90428	4
7	CA	4	-2.39804	-0.83891	0.55781	400.96625	33.49808	4
7	CA	5	-2.11946	-0.55166	0.51902	418.21643	31.16863	4
7	CA	6	-1.87313	-0.29767	0.49108	433.46925	29.49075	5
7	CA	7	-1.64925	-0.06683	0.47012	447.33185	28.23204	5
7	CA	8	-1.44160	0.14728	0.45418	460.18977	27.27480	5
7	CA	9	-1.24608	0.34888	0.44175	472.29642	26.52834	5
7	CA	10	-1.05970	0.54105	0.43213	483.83678	25.95064	6
7	CA	11	-0.88022	0.72612	0.42474	494.95076	25.50685	6
7	CA	12	-0.70589	0.90587	0.41923	505.74526	25.17595	6
7	CA	13	-0.53529	1.08177	0.41531	516.30855	24.94055	6
7	CA	14	-0.36719	1.25510	0.41284	526.71751	24.79222	6
7	CA	15	-0.20049	1.42699	0.41168	537.04000	24.72256	7
7	CA	16	-0.03414	1.59851	0.41180	547.34026	24.72976	7
7	CA	17	0.13283	1.77067	0.41318	557.67896	24.81264	7
7	CA	18	0.30147	1.94456	0.41583	568.12155	24.97178	7
7	CA	19	0.47284	2.12126	0.41984	578.73288	25.21259	7
7	CA	20	0.64812	2.30199	0.42531	589.58624	25.54108	8
7	CA	21	0.82861	2.48809	0.43241	600.76207	25.96745	8
7	CA	22	1.01587	2.68117	0.44141	612.35707	26.50793	8
7	CA	23	1.21176	2.88316	0.45265	624.48715	27.18292	8
7	CA	24	1.41865	3.09648	0.46666	637.29762	28.02426	9
7	CA	25	1.63968	3.32438	0.48418	650.98367	29.07639	9
7	CA	26	1.87911	3.57126	0.50670	665.80951	30.42878	9
7	CA	27	2.14336	3.84373	0.53615	682.17211	32.19733	9
7	CA	28	2.44250	4.15217	0.57632	700.69481	34.60966	9
7	CA	29	2.79412	4.51473	0.63426	722.46757	38.08912	9
7	CA	30	3.23333	4.96760	0.72708	749.66370	43.66322	9
7	CA	31	3.84999	5.60344	0.90780	787.84771	54.51597	9
7	CA	32	5.05830	6.84932	1.51629	862.66635	91.05753	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	-5.35563	-4.21563	1.49174	138.22358	100.33901	4
7	Reading	1	-4.17473	-2.94593	0.88545	223.62750	59.55808	4
7	Reading	2	-3.58532	-2.31220	0.70335	266.25412	47.30948	4
7	Reading	3	-3.17390	-1.86984	0.60781	296.00861	40.88316	4
7	Reading	4	-2.85089	-1.52254	0.54706	319.36907	36.79693	4
7	Reading	5	-2.58144	-1.23282	0.50410	338.85653	33.90731	4
7	Reading	6	-2.34809	-0.98193	0.47200	355.73216	31.74817	4
7	Reading	7	-2.14089	-0.75915	0.44673	370.71702	30.04843	4
7	Reading	8	-1.95347	-0.55763	0.42625	384.27188	28.67088	4
7	Reading	9	-1.78156	-0.37279	0.40930	396.70478	27.53077	4
7	Reading	10	-1.62212	-0.20136	0.39503	408.23569	26.57093	4
7	Reading	11	-1.47289	-0.04091	0.38288	419.02805	25.75368	4
7	Reading	12	-1.33215	0.11041	0.37243	429.20630	25.05078	5
7	Reading	13	-1.19855	0.25406	0.36335	438.86864	24.44003	5
7	Reading	14	-1.07101	0.39119	0.35551	448.09242	23.91269	5
7	Reading	15	-0.94864	0.52276	0.34866	456.94222	23.45194	5
7	Reading	16	-0.83069	0.64958	0.34268	465.47252	23.04971	5
7	Reading	17	-0.71655	0.77230	0.33747	473.72705	22.69927	5
7	Reading	18	-0.60567	0.89152	0.33296	481.74615	22.39591	6
7	Reading	19	-0.49757	1.00775	0.32907	489.56414	22.13426	6
7	Reading	20	-0.39182	1.12145	0.32577	497.21195	21.91229	6
7	Reading	21	-0.28804	1.23304	0.32302	504.71783	21.72732	6
7	Reading	22	-0.18589	1.34287	0.32077	512.10533	21.57597	6
7	Reading	23	-0.08501	1.45134	0.31904	519.40136	21.45961	6
7	Reading	24	0.01486	1.55872	0.31775	526.62407	21.37284	6
7	Reading	25	0.11407	1.66539	0.31696	533.79902	21.31970	7
7	Reading	26	0.21289	1.77164	0.31663	540.94572	21.29750	7
7	Reading	27	0.31162	1.87779	0.31678	548.08569	21.30759	7
7	Reading	28	0.41056	1.98417	0.31742	555.24114	21.35064	7
7	Reading	29	0.51003	2.09112	0.31857	562.43492	21.42799	7
7	Reading	30	0.61034	2.19898	0.32026	569.68992	21.54167	7
7	Reading	31	0.71186	2.30813	0.32253	577.03168	21.69436	7
7	Reading	32	0.81497	2.41900	0.32542	584.48914	21.88875	8
7	Reading	33	0.92010	2.53203	0.32900	592.09188	22.12955	8
7	Reading	34	1.02774	2.64777	0.33336	599.87691	22.42282	8
7	Reading	35	1.13846	2.76681	0.33859	607.88390	22.77460	8
7	Reading	36	1.25293	2.88989	0.34484	616.16264	23.19500	8
7	Reading	37	1.37194	3.01785	0.35226	624.76962	23.69409	8
7	Reading	38	1.49649	3.15177	0.36109	633.77749	24.28802	8
7	Reading	39	1.62780	3.29295	0.37158	643.27369	24.99361	9
7	Reading	40	1.76745	3.44310	0.38426	653.37324	25.84651	9
7	Reading	41	1.91752	3.60446	0.39966	664.22681	26.88236	9
7	Reading	42	2.08086	3.78008	0.41866	676.03955	28.16036	9
7	Reading	43	2.26155	3.97436	0.44257	689.10742	29.76862	9
7	Reading	44	2.46564	4.19380	0.47353	703.86763	31.85108	9
7	Reading	45	2.70287	4.44887	0.51514	721.02442	34.64990	9
7	Reading	46	2.99030	4.75791	0.57501	741.81139	38.67694	9
7	Reading	47	3.36252	5.15812	0.66975	768.73075	45.04944	9
7	Reading	48	3.90881	5.74549	0.85086	808.23905	57.23145	9
7	Reading	49	5.04265	6.96460	1.45037	890.24013	97.55633	9

TABLE 13 Year 7 Spelling Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered		Logit SE	Scale Score	Scale SE	Band
			Logit	Logit				
7	Spelling	0	-5.17381	-3.42637	1.51745	333.58218	57.82745	4
7	Spelling	1	-3.96590	-2.14961	0.91006	382.23734	34.68084	4
7	Spelling	2	-3.34787	-1.49635	0.73075	407.13197	27.84764	4
7	Spelling	3	-2.90555	-1.02882	0.63950	424.94874	24.37026	4
7	Spelling	4	-2.54894	-0.65188	0.58347	439.31329	22.23505	5
7	Spelling	5	-2.24279	-0.32828	0.54551	451.64514	20.78846	5
7	Spelling	6	-1.96930	-0.03920	0.51857	462.66148	19.76182	5
7	Spelling	7	-1.71832	0.22609	0.49871	472.77124	19.00499	5
7	Spelling	8	-1.48333	0.47447	0.48385	482.23658	18.43870	6
7	Spelling	9	-1.26003	0.71050	0.47258	491.23128	18.00922	6
7	Spelling	10	-1.04530	0.93747	0.46409	499.88072	17.68568	6
7	Spelling	11	-0.83680	1.15785	0.45788	508.27903	17.44903	6
7	Spelling	12	-0.63279	1.37349	0.45349	516.49670	17.28173	6
7	Spelling	13	-0.43178	1.58596	0.45069	524.59357	17.17503	6
7	Spelling	14	-0.23249	1.79661	0.44933	532.62109	17.12320	7
7	Spelling	15	-0.03375	2.00668	0.44934	540.62650	17.12359	7
7	Spelling	16	0.16559	2.21738	0.45071	548.65592	17.17579	7
7	Spelling	17	0.36674	2.42999	0.45350	556.75813	17.28212	7
7	Spelling	18	0.57095	2.64584	0.45782	564.98380	17.44674	7
7	Spelling	19	0.77970	2.86649	0.46378	573.39240	17.67387	7
7	Spelling	20	0.99462	3.09366	0.47170	582.04946	17.97569	8
7	Spelling	21	1.21772	3.32948	0.48193	591.03616	18.36553	8
7	Spelling	22	1.45150	3.57658	0.49502	600.45273	18.86437	8
7	Spelling	23	1.69928	3.83849	0.51177	610.43367	19.50269	8
7	Spelling	24	1.96567	4.12006	0.53337	621.16383	20.32583	8
7	Spelling	25	2.25732	4.42834	0.56233	632.91186	21.42944	8
7	Spelling	26	2.58498	4.77467	0.60215	646.10990	22.94692	9
7	Spelling	27	2.96717	5.17865	0.66014	661.50490	25.15682	9
7	Spelling	28	3.44038	5.67883	0.75363	680.56591	28.71956	9
7	Spelling	29	4.09634	6.37218	0.93580	706.98830	35.66175	9
7	Spelling	30	5.35027	7.69758	1.55265	757.49705	59.16886	9

TABLE 14 Year 7 Grammar & Punctuation Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered		Logit SE	Scale Score	Scale SE	Band
			Logit	Logit				
7	GP	0	-4.77619	-3.70500	1.50035	135.58251	110.27931	4
7	GP	1	-3.58919	-2.49046	0.89621	224.85410	65.87358	4
7	GP	2	-2.98995	-1.87732	0.71756	269.92135	52.74237	4
7	GP	3	-2.56443	-1.44193	0.62683	301.92356	46.07350	4
7	GP	4	-2.22312	-1.09270	0.57088	327.59280	41.96104	4
7	GP	5	-1.93093	-0.79373	0.53333	349.56781	39.20103	4
7	GP	6	-1.67051	-0.52727	0.50655	369.15325	37.23264	4
7	GP	7	-1.43176	-0.28298	0.48701	387.10915	35.79640	4
7	GP	8	-1.20834	-0.05438	0.47253	403.91180	34.73208	4
7	GP	9	-0.99595	0.16294	0.46173	419.88534	33.93826	4
7	GP	10	-0.79146	0.37217	0.45383	435.26424	33.35759	5
7	GP	11	-0.59251	0.57574	0.44827	450.22712	32.94892	5
7	GP	12	-0.39726	0.77552	0.44466	464.91143	32.68357	5
7	GP	13	-0.20417	0.97309	0.44277	479.43330	32.54465	6
7	GP	14	-0.01188	1.16984	0.44244	493.89489	32.52040	6
7	GP	15	0.18083	1.36702	0.44362	508.38809	32.60713	6
7	GP	16	0.37522	1.56592	0.44634	523.00772	32.80706	6
7	GP	17	0.57259	1.76787	0.45071	537.85153	33.12826	7
7	GP	18	0.77442	1.97438	0.45697	553.03050	33.58839	7
7	GP	19	0.98248	2.18727	0.46546	568.67843	34.21242	7
7	GP	20	1.19901	2.40882	0.47675	584.96288	35.04226	8
7	GP	21	1.42708	2.64218	0.49160	602.11540	36.13377	8
7	GP	22	1.67088	2.89164	0.51143	620.45130	37.59133	8
7	GP	23	1.93678	3.16371	0.53833	640.44910	39.56854	9
7	GP	24	2.23483	3.46867	0.57622	662.86439	42.35355	9
7	GP	25	2.58272	3.82463	0.63222	689.02830	46.46968	9
7	GP	26	3.01568	4.26764	0.72347	721.59059	53.17677	9
7	GP	27	3.62389	4.88996	0.90278	767.33260	66.35649	9
7	GP	28	4.82196	6.11582	1.50919	857.43624	110.92907	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	-5.73463	-3.03881	1.46050	268.85599	87.70718	5
9	Numeracy	1	-4.58943	-1.89888	0.85908	337.31203	51.59020	5
9	Numeracy	2	-4.03308	-1.34509	0.67748	370.56870	40.68460	5
9	Numeracy	3	-3.65194	-0.96570	0.58239	393.35215	34.97418	5
9	Numeracy	4	-3.35661	-0.67173	0.52214	411.00589	31.35599	5
9	Numeracy	5	-3.11242	-0.42867	0.47981	425.60233	28.81396	5
9	Numeracy	6	-2.90215	-0.21936	0.44850	438.17199	26.93370	5
9	Numeracy	7	-2.71607	-0.03414	0.42406	449.29498	25.46601	5
9	Numeracy	8	-2.54803	0.13313	0.40445	459.34002	24.28837	5
9	Numeracy	9	-2.39395	0.28650	0.38839	468.55032	23.32393	5
9	Numeracy	10	-2.25094	0.42885	0.37500	477.09885	22.51982	5
9	Numeracy	11	-2.11689	0.56228	0.36371	485.11170	21.84182	6
9	Numeracy	12	-1.99022	0.68837	0.35408	492.68376	21.26351	6
9	Numeracy	13	-1.86971	0.80833	0.34576	499.88770	20.76387	6
9	Numeracy	14	-1.75435	0.92316	0.33865	506.78357	20.33690	6
9	Numeracy	15	-1.64338	1.03362	0.33246	513.41701	19.96517	6
9	Numeracy	16	-1.53616	1.14034	0.32706	519.82585	19.64088	6
9	Numeracy	17	-1.43215	1.24387	0.32234	526.04312	19.35743	6
9	Numeracy	18	-1.33089	1.34467	0.31822	532.09644	19.11002	7
9	Numeracy	19	-1.23200	1.44310	0.31463	538.00745	18.89443	7
9	Numeracy	20	-1.13514	1.53952	0.31152	543.79774	18.70766	7
9	Numeracy	21	-1.04003	1.63419	0.30882	549.48294	18.54552	7
9	Numeracy	22	-0.94641	1.72738	0.30651	555.07927	18.40680	7
9	Numeracy	23	-0.85406	1.81931	0.30453	560.59993	18.28789	7
9	Numeracy	24	-0.76276	1.91019	0.30287	566.05753	18.18821	7
9	Numeracy	25	-0.67234	2.00019	0.30151	571.46229	18.10653	7
9	Numeracy	26	-0.58262	2.08950	0.30042	576.82561	18.04108	7
9	Numeracy	27	-0.49344	2.17827	0.29959	582.15650	17.99123	8
9	Numeracy	28	-0.40467	2.26663	0.29900	587.46277	17.95580	8
9	Numeracy	29	-0.31616	2.35473	0.29865	592.75342	17.93478	8
9	Numeracy	30	-0.22777	2.44271	0.29852	598.03687	17.92698	8
9	Numeracy	31	-0.13938	2.53070	0.29862	603.32092	17.93298	8
9	Numeracy	32	-0.05085	2.61882	0.29893	608.61278	17.95160	8
9	Numeracy	33	0.03793	2.70719	0.29946	613.91965	17.98343	8
9	Numeracy	34	0.12709	2.79594	0.30022	619.24934	18.02907	8
9	Numeracy	35	0.21678	2.88522	0.30119	624.61086	18.08732	8
9	Numeracy	36	0.30713	2.97515	0.30238	630.01141	18.15878	8
9	Numeracy	37	0.39825	3.06585	0.30382	635.45820	18.24526	9
9	Numeracy	38	0.49032	3.15750	0.30551	640.96205	18.34675	9
9	Numeracy	39	0.58348	3.25023	0.30745	646.53075	18.46325	9
9	Numeracy	40	0.67790	3.34422	0.30966	652.17511	18.59596	9
9	Numeracy	41	0.77377	3.43965	0.31217	657.90596	18.74670	9
9	Numeracy	42	0.87127	3.53670	0.31499	663.73409	18.91605	9
9	Numeracy	43	0.97063	3.63560	0.31816	669.67331	19.10641	9
9	Numeracy	44	1.07209	3.73659	0.32170	675.73805	19.31900	9
9	Numeracy	45	1.17593	3.83996	0.32564	681.94571	19.55561	9
9	Numeracy	46	1.28244	3.94598	0.33005	688.31252	19.82044	10
9	Numeracy	47	1.39197	4.05500	0.33496	694.85948	20.11530	10
9	Numeracy	48	1.50493	4.16744	0.34049	701.61182	20.44739	10
9	Numeracy	49	1.62180	4.28378	0.34668	708.59837	20.81912	10

Year	Domain	Raw Score	Delta-Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
9	Numeracy	50	1.74314	4.40456	0.35365	715.85155	21.23769	10
9	Numeracy	51	1.86960	4.53044	0.36153	723.41100	21.71091	10
9	Numeracy	52	2.00201	4.66224	0.37050	731.32597	22.24958	10
9	Numeracy	53	2.14138	4.80097	0.38079	739.65710	22.86752	10
9	Numeracy	54	2.28898	4.94789	0.39270	748.48006	23.58275	10
9	Numeracy	55	2.44643	5.10461	0.40664	757.89154	24.41989	10
9	Numeracy	56	2.61590	5.27330	0.42318	768.02186	25.41316	10
9	Numeracy	57	2.80032	5.45687	0.44316	779.04576	26.61302	10
9	Numeracy	58	3.00386	5.65948	0.46782	791.21307	28.09392	10
9	Numeracy	59	3.23263	5.88720	0.49956	804.88830	30.00000	10
9	Numeracy	60	3.49649	6.14984	0.54177	820.66058	32.53483	10
9	Numeracy	61	3.81257	6.46447	0.60183	839.55501	36.14160	10
9	Numeracy	62	4.21542	6.86547	0.69652	863.63620	41.82801	10
9	Numeracy	63	4.79422	7.44160	0.87776	898.23445	52.71199	10
9	Numeracy	64	5.96218	8.60419	1.48149	968.05129	88.96769	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	-4.97175	-2.27944	1.49616	314.45832	89.84867	5
9	NC	1	-3.78882	-1.10196	0.89267	385.16935	53.60737	5
9	NC	2	-3.19329	-0.50916	0.71393	420.76868	42.87353	5
9	NC	3	-2.77177	-0.08958	0.62206	445.96565	37.35647	5
9	NC	4	-2.43485	0.24579	0.56531	466.10557	33.94847	5
9	NC	5	-2.14800	0.53132	0.52634	483.25246	31.60822	6
9	NC	6	-1.89401	0.78414	0.49807	498.43502	29.91052	6
9	NC	7	-1.66309	1.01400	0.47681	512.23877	28.63380	6
9	NC	8	-1.44909	1.22701	0.46035	525.03063	27.64533	6
9	NC	9	-1.24788	1.42730	0.44741	537.05861	26.86824	7
9	NC	10	-1.05645	1.61785	0.43722	548.50168	26.25631	7
9	NC	11	-0.87258	1.80087	0.42923	559.49255	25.77648	7
9	NC	12	-0.69451	1.97812	0.42307	570.13692	25.40656	7
9	NC	13	-0.52080	2.15103	0.41851	580.52066	25.13272	7
9	NC	14	-0.35020	2.32085	0.41537	590.71883	24.94415	8
9	NC	15	-0.18162	2.48865	0.41355	600.79570	24.83485	8
9	NC	16	-0.01400	2.65550	0.41299	610.81552	24.80123	8
9	NC	17	0.15363	2.82236	0.41370	620.83594	24.84386	8
9	NC	18	0.32233	2.99028	0.41571	630.92001	24.96457	8
9	NC	19	0.49315	3.16032	0.41909	641.13140	25.16755	9
9	NC	20	0.66728	3.33365	0.42400	651.54036	25.46241	9
9	NC	21	0.84609	3.51163	0.43057	662.22856	25.85695	9
9	NC	22	1.03114	3.69583	0.43916	673.29030	26.37281	9
9	NC	23	1.22442	3.88822	0.45013	684.84386	27.03159	9
9	NC	24	1.42841	4.09128	0.46407	697.03819	27.86872	10
9	NC	25	1.64649	4.30835	0.48177	710.07387	28.93166	10
9	NC	26	1.88327	4.54404	0.50467	724.22772	30.30687	10
9	NC	27	2.14561	4.80518	0.53495	739.90992	32.12527	10
9	NC	28	2.44434	5.10253	0.57643	757.76663	34.61626	10
9	NC	29	2.79824	5.45480	0.63633	778.92145	38.21343	10
9	NC	30	3.24427	5.89878	0.73206	805.58371	43.96229	10
9	NC	31	3.87518	6.52679	0.91648	843.29750	55.03723	10
9	NC	32	5.10807	7.75401	1.53298	916.99556	92.05981	10

TABLE 17 Year 9 Calculator Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered			Scale Score	Scale SE	Band
			Logit	Logit	Logit SE			
9	CA	0	-5.14904	-2.45592	1.50945	303.86020	90.64677	5
9	CA	1	-3.94788	-1.26028	0.89981	375.66178	54.03615	5
9	CA	2	-3.34157	-0.65676	0.71798	411.90488	43.11674	5
9	CA	3	-2.91434	-0.23150	0.62467	437.44295	37.51321	5
9	CA	4	-2.57510	0.10618	0.56663	457.72160	34.02774	5
9	CA	5	-2.28762	0.39234	0.52739	474.90632	31.67127	5
9	CA	6	-2.03376	0.64503	0.49920	490.08107	29.97838	6
9	CA	7	-1.80280	0.87493	0.47863	503.88722	28.74309	6
9	CA	8	-1.58806	1.08868	0.46324	516.72352	27.81888	6
9	CA	9	-1.38485	1.29096	0.45183	528.87101	27.13368	6
9	CA	10	-1.18983	1.48508	0.44350	540.52847	26.63344	7
9	CA	11	-1.00049	1.67355	0.43763	551.84663	26.28093	7
9	CA	12	-0.81486	1.85832	0.43378	562.94259	26.04972	7
9	CA	13	-0.63137	2.04097	0.43162	573.91124	25.92001	7
9	CA	14	-0.44870	2.22280	0.43092	584.83065	25.87797	8
9	CA	15	-0.26573	2.40493	0.43152	595.76808	25.91400	8
9	CA	16	-0.08147	2.58834	0.43330	606.78237	26.02090	8
9	CA	17	0.10502	2.77397	0.43622	617.92998	26.19625	8
9	CA	18	0.29466	2.96274	0.44022	629.26615	26.43646	8
9	CA	19	0.48839	3.15558	0.44538	640.84675	26.74634	9
9	CA	20	0.68722	3.35350	0.45176	652.73240	27.12947	9
9	CA	21	0.89232	3.55765	0.45952	664.99219	27.59548	9
9	CA	22	1.10505	3.76940	0.46888	677.70838	28.15758	9
9	CA	23	1.32710	3.99043	0.48018	690.98186	28.83618	10
9	CA	24	1.56062	4.22288	0.49393	704.94115	29.66190	10
9	CA	25	1.80849	4.46961	0.51100	719.75799	30.68700	10
9	CA	26	2.07483	4.73472	0.53263	735.67860	31.98595	10
9	CA	27	2.36583	5.02438	0.56096	753.07350	33.68724	10
9	CA	28	2.69140	5.34846	0.59973	772.53543	36.01549	10
9	CA	29	3.06895	5.72427	0.65602	795.10389	39.39587	10
9	CA	30	3.53304	6.18622	0.74733	822.84530	44.87929	10
9	CA	31	4.17287	6.82311	0.92574	861.09236	55.59332	10
9	CA	32	5.40075	8.04534	1.53446	934.49075	92.14869	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	-5.35162	-3.15878	1.47992	209.31055	99.54396	5
9	Reading	1	-4.18576	-2.06882	0.87705	282.62460	58.99307	5
9	Reading	2	-3.60822	-1.52888	0.69619	318.94262	46.82787	5
9	Reading	3	-3.20577	-1.15263	0.60211	344.25035	40.49976	5
9	Reading	4	-2.88946	-0.85691	0.54243	364.14139	36.48550	5
9	Reading	5	-2.62488	-0.60955	0.50036	380.77958	33.65575	5
9	Reading	6	-2.39501	-0.39465	0.46903	395.23441	31.54840	5
9	Reading	7	-2.19030	-0.20327	0.44434	408.10722	29.88767	5
9	Reading	8	-2.00468	-0.02973	0.42429	419.78005	28.53905	5
9	Reading	9	-1.83412	0.12973	0.40761	430.50582	27.41710	5
9	Reading	10	-1.67575	0.27779	0.39349	440.46479	26.46734	5
9	Reading	11	-1.52746	0.41642	0.38138	449.78947	25.65279	5
9	Reading	12	-1.38763	0.54715	0.37088	458.58277	24.94653	5
9	Reading	13	-1.25498	0.67116	0.36171	466.92406	24.32972	5
9	Reading	14	-1.12849	0.78942	0.35363	474.87859	23.78624	5
9	Reading	15	-1.00730	0.90272	0.34657	482.49950	23.31136	6
9	Reading	16	-0.89070	1.01173	0.34034	489.83184	22.89231	6
9	Reading	17	-0.77809	1.11701	0.33484	496.91330	22.52236	6
9	Reading	18	-0.66892	1.21907	0.33002	503.77817	22.19816	6
9	Reading	19	-0.56273	1.31835	0.32580	510.45604	21.91431	6
9	Reading	20	-0.45912	1.41521	0.32215	516.97114	21.66880	6
9	Reading	21	-0.35769	1.51004	0.31902	523.34970	21.45826	6
9	Reading	22	-0.25811	1.60314	0.31640	529.61189	21.28203	6
9	Reading	23	-0.16006	1.69481	0.31425	535.77790	21.13742	7
9	Reading	24	-0.06322	1.78534	0.31257	541.86722	21.02442	7
9	Reading	25	0.03265	1.87497	0.31130	547.89601	20.93899	7
9	Reading	26	0.12788	1.96400	0.31051	553.88444	20.88585	7
9	Reading	27	0.22271	2.05266	0.31015	559.84799	20.86164	7
9	Reading	28	0.31743	2.14121	0.31023	565.80413	20.86702	7
9	Reading	29	0.41230	2.22990	0.31077	571.76969	20.90334	7
9	Reading	30	0.50762	2.31902	0.31179	577.76418	20.97195	7
9	Reading	31	0.60369	2.40884	0.31331	583.80574	21.07419	8
9	Reading	32	0.70082	2.49964	0.31536	589.91323	21.21208	8
9	Reading	33	0.79936	2.59177	0.31798	596.11018	21.38831	8
9	Reading	34	0.89971	2.68558	0.32122	602.42013	21.60624	8
9	Reading	35	1.00228	2.78148	0.32516	608.87065	21.87126	8
9	Reading	36	1.10758	2.87992	0.32987	615.49203	22.18807	8
9	Reading	37	1.21617	2.98144	0.33546	622.32058	22.56407	8
9	Reading	38	1.32873	3.08668	0.34207	629.39934	23.00868	8
9	Reading	39	1.44608	3.19639	0.34986	636.77877	23.53266	9
9	Reading	40	1.56920	3.31149	0.35903	644.52075	24.14946	9
9	Reading	41	1.69935	3.43317	0.36987	652.70532	24.87859	9
9	Reading	42	1.83809	3.56288	0.38298	661.43001	25.76041	9
9	Reading	43	1.98756	3.70262	0.39876	670.82935	26.82182	9
9	Reading	44	2.15062	3.85506	0.41814	681.08294	28.12538	9
9	Reading	45	2.33134	4.02402	0.44242	692.44770	29.75853	10
9	Reading	46	2.53583	4.21519	0.47372	705.30638	31.86386	10
9	Reading	47	2.77384	4.43771	0.51557	720.27376	34.67882	10
9	Reading	48	3.06241	4.70749	0.57589	738.41999	38.73613	10
9	Reading	49	3.43618	5.05693	0.67092	761.92440	45.12814	10

Year	Domain	Raw Score	Delta- Centered Logit	Logit	Logit SE	Scale Score	Scale SE	Band
9	Reading	50	3.98446	5.56952	0.85232	796.40277	57.32966	10
9	Reading	51	5.12071	6.63180	1.45238	867.85498	97.69153	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	-5.21400	-2.27416	1.52114	377.49095	57.96807	5
9	Spelling	1	-4.00321	-0.96009	0.91469	427.56793	34.85728	5
9	Spelling	2	-3.37979	-0.28350	0.73640	453.35163	28.06295	5
9	Spelling	3	-2.93018	0.20447	0.64593	471.94733	24.61530	5
9	Spelling	4	-2.56524	0.60054	0.59025	487.04089	22.49343	6
9	Spelling	5	-2.25056	0.94206	0.55213	500.05564	21.04074	6
9	Spelling	6	-1.96915	1.24747	0.52441	511.69430	19.98438	6
9	Spelling	7	-1.71134	1.52727	0.50354	522.35700	19.18906	6
9	Spelling	8	-1.47115	1.78795	0.48724	532.29107	18.56789	7
9	Spelling	9	-1.24448	2.03396	0.47437	541.66610	18.07744	7
9	Spelling	10	-1.02831	2.26857	0.46420	550.60668	17.68987	7
9	Spelling	11	-0.82032	2.49430	0.45629	559.20887	17.38844	7
9	Spelling	12	-0.61861	2.71321	0.45032	567.55116	17.16093	7
9	Spelling	13	-0.42148	2.92716	0.44615	575.70443	17.00202	7
9	Spelling	14	-0.22741	3.13778	0.44369	583.73080	16.90827	8
9	Spelling	15	-0.03490	3.34671	0.44291	591.69277	16.87855	8
9	Spelling	16	0.15750	3.55553	0.44385	599.65055	16.91437	8
9	Spelling	17	0.35140	3.76596	0.44661	607.66968	17.01955	8
9	Spelling	18	0.54847	3.97984	0.45133	615.82028	17.19942	8
9	Spelling	19	0.75064	4.19926	0.45824	624.18201	17.46275	8
9	Spelling	20	0.96011	4.42660	0.46764	632.84555	17.82097	8
9	Spelling	21	1.17959	4.66480	0.47996	641.92295	18.29046	9
9	Spelling	22	1.41243	4.91750	0.49576	651.55291	18.89257	9
9	Spelling	23	1.66296	5.18940	0.51581	661.91456	19.65664	9
9	Spelling	24	1.93691	5.48672	0.54155	673.24492	20.63755	9
9	Spelling	25	2.24233	5.81819	0.57483	685.87668	21.90580	9
9	Spelling	26	2.59103	6.19664	0.61915	700.29877	23.59476	10
9	Spelling	27	3.00203	6.64269	0.68137	717.29698	25.96585	10
9	Spelling	28	3.51134	7.19545	0.77799	738.36172	29.64788	10
9	Spelling	29	4.20848	7.95205	0.96236	767.19447	36.67391	10
9	Spelling	30	5.50447	9.35859	1.58538	820.79532	60.41614	10

TABLE 20 Year 9 Grammar and Punctuation Score Equivalence Table

Year	Domain	Raw Score	Delta-Centered		Logit SE	Scale Score	Scale SE	Band
			Logit	Logit				
9	GP	0	-4.77882	-3.44058	1.51028	155.01801	111.00919	5
9	GP	1	-3.58064	-2.18620	0.90606	247.21793	66.59757	5
9	GP	2	-2.96827	-1.54511	0.72814	294.33958	53.52003	5
9	GP	3	-2.52888	-1.08512	0.63734	328.14994	46.84601	5
9	GP	4	-2.17379	-0.71337	0.58114	355.47446	42.71518	5
9	GP	5	-1.86903	-0.39432	0.54237	378.92540	39.86549	5
9	GP	6	-1.59783	-0.11040	0.51396	399.79419	37.77729	5
9	GP	7	-1.35071	0.14831	0.49231	418.81000	36.18596	5
9	GP	8	-1.12169	0.38807	0.47532	436.43293	34.93716	5
9	GP	9	-0.90663	0.61322	0.46183	452.98199	33.94561	5
9	GP	10	-0.70246	0.82696	0.45114	468.69239	33.15987	5
9	GP	11	-0.50676	1.03184	0.44281	483.75156	32.54759	6
9	GP	12	-0.31751	1.22997	0.43655	498.31459	32.08747	6
9	GP	13	-0.13297	1.42316	0.43220	512.51452	31.76773	6
9	GP	14	0.04846	1.61310	0.42965	526.47556	31.58030	6
9	GP	15	0.22831	1.80139	0.42891	540.31533	31.52591	7
9	GP	16	0.40809	1.98960	0.43001	554.14921	31.60676	7
9	GP	17	0.58940	2.17941	0.43309	568.10070	31.83315	7
9	GP	18	0.77399	2.37266	0.43837	582.30503	32.22124	8
9	GP	19	0.96390	2.57148	0.44622	596.91878	32.79824	8
9	GP	20	1.16162	2.77847	0.45718	612.13304	33.60382	8
9	GP	21	1.37037	2.99701	0.47207	628.19625	34.69827	8
9	GP	22	1.59461	3.23177	0.49202	645.45167	36.16465	9
9	GP	23	1.84067	3.48937	0.51932	664.38589	38.17126	9
9	GP	24	2.11863	3.78036	0.55762	685.77435	40.98640	9
9	GP	25	2.44588	4.12296	0.61431	710.95627	45.15325	10
9	GP	26	2.85749	4.55388	0.70584	742.62992	51.88093	10
9	GP	27	3.44297	5.16681	0.88509	787.68173	65.05623	10
9	GP	28	4.61635	6.39523	1.48811	877.97354	109.37964	10

TABLE 21 Year 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	-12.53942	-12.54000	1.76300	94.52478	52.30000	1
3579	Writing	1	-10.96010	-10.96000	1.07800	141.43828	32.00000	1
3579	Writing	2	-10.07480	-10.07000	0.86900	167.86425	25.80000	1
3579	Writing	3	-9.44963	-9.45000	0.77000	186.27335	22.90000	1
3579	Writing	4	-8.93305	-8.93300	0.71900	201.62416	21.30000	1
3579	Writing	5	-8.46266	-8.46300	0.69400	215.57944	20.60000	1
3579	Writing	6	-8.00794	-8.00800	0.68400	229.08934	20.30000	1
3579	Writing	7	-7.55131	-7.55100	0.68500	242.65863	20.30000	1
3579	Writing	8	-7.08260	-7.08300	0.69000	256.55453	20.50000	1
3579	Writing	9	-6.59984	-6.60000	0.69500	270.89581	20.60000	2
3579	Writing	10	-6.11019	-6.11000	0.69800	285.44494	20.70000	2
3579	Writing	11	-5.62191	-5.62200	0.69800	299.93468	20.70000	2
3579	Writing	12	-5.13566	-5.13600	0.69900	314.36503	20.80000	2
3579	Writing	13	-4.64673	-4.64700	0.70200	328.88447	20.80000	3
3579	Writing	14	-4.15104	-4.15100	0.70500	343.61175	20.90000	3
3579	Writing	15	-3.64855	-3.64900	0.70500	358.51718	20.90000	3
3579	Writing	16	-3.14571	-3.14600	0.70000	373.45230	20.80000	3
3579	Writing	17	-2.65476	-2.65500	0.69000	388.03112	20.50000	4
3579	Writing	18	-2.18469	-2.18500	0.67800	401.98640	20.10000	4
3579	Writing	19	-1.73507	-1.73500	0.66600	415.34784	19.80000	4
3579	Writing	20	-1.30026	-1.30000	0.65700	428.26390	19.50000	5
3579	Writing	21	-0.87509	-0.87500	0.65000	440.88304	19.30000	5
3579	Writing	22	-0.45735	-0.45700	0.64300	453.29434	19.10000	5
3579	Writing	23	-0.04732	-0.04700	0.63700	465.46810	18.90000	5
3579	Writing	24	0.35408	0.35400	0.63100	477.37463	18.70000	5
3579	Writing	25	0.74713	0.74700	0.62600	489.04362	18.60000	6
3579	Writing	26	1.13353	1.13400	0.62200	500.53446	18.50000	6
3579	Writing	27	1.51576	1.51600	0.62000	511.87684	18.40000	6
3579	Writing	28	1.89675	1.89700	0.62100	523.18952	18.40000	6
3579	Writing	29	2.28021	2.28000	0.62400	534.56160	18.50000	7
3579	Writing	30	2.67061	2.67100	0.62900	546.17120	18.70000	7
3579	Writing	31	3.07135	3.07100	0.63400	558.04804	18.80000	7
3579	Writing	32	3.48153	3.48200	0.63700	570.25149	18.90000	7
3579	Writing	33	3.89416	3.89400	0.63600	582.48463	18.90000	8
3579	Writing	34	4.30011	4.30000	0.63100	594.53962	18.70000	8
3579	Writing	35	4.69442	4.69400	0.62500	606.23831	18.60000	8
3579	Writing	36	5.07807	5.07800	0.62100	617.64007	18.40000	8
3579	Writing	37	5.45606	5.45600	0.62000	628.86368	18.40000	8
3579	Writing	38	5.83510	5.83500	0.62300	640.11699	18.50000	9
3579	Writing	39	6.22224	6.22200	0.63100	651.60783	18.70000	9
3579	Writing	40	6.62346	6.62300	0.64100	663.51436	19.00000	9
3579	Writing	41	7.04157	7.04200	0.65300	675.95534	19.40000	9
3579	Writing	42	7.47486	7.47500	0.66500	688.81202	19.70000	10
3579	Writing	43	7.92039	7.92000	0.68000	702.02500	20.20000	10
3579	Writing	44	8.38147	8.38100	0.70200	715.71306	20.90000	10
3579	Writing	45	8.87411	8.87400	0.74300	730.35126	22.10000	10
3579	Writing	46	9.43550	9.43600	0.82000	747.03821	24.30000	10
3579	Writing	47	10.15886	10.15900	0.98800	768.50560	29.30000	10
3579	Writing	48	11.46052	11.46100	1.59900	807.16470	47.50000	10