

APPENDIX 18: FIELD TEST ITEM ANALYSIS

MATHEMATICS

Table 18–1. Mathematics—Multiple-Choice Items

Form	Seq	Logit	SE	Fit ¹	p-value	PtBis	Omits
F01WM	15	1.82	0.06	-0.6	0.42	0.45	0.01
F01WM	16	0.23	0.06	4.0	0.72	0.30	0.00
F01WM	17	-0.84	0.08	2.7	0.86	0.25	0.00
F01WM	18	3.03	0.07	4.5	0.22	0.28	0.01
F01WM	19	1.18	0.06	1.3	0.54	0.42	0.01
F01WM	35	-0.78	0.08	-0.5	0.85	0.39	0.01
F01WM	36	0.73	0.06	-0.2	0.63	0.42	0.01
F01WM	37	1.78	0.06	-3.9	0.43	0.55	0.00
F01WM	38	1.74	0.06	8.6*	0.44	0.22	0.01
F01WM	39	1.08	0.06	9.9*	0.56	0.16	0.01
F01WM	65	-0.23	0.07	-2.8	0.79	0.44	0.02
F01WM	66	0.74	0.06	-2.0	0.63	0.49	0.02
F01WM	67	-0.22	0.07	2.8	0.79	0.35	0.01
F01WM	68	3.18	0.07	7.7*	0.20	0.19	0.01
F01WM	69	0.15	0.06	-5.3	0.73	0.59	0.01
F02WM	15	1.07	0.06	-3.5	0.57	0.54	0.00
F02WM	16	1.70	0.07	3.0	0.45	0.37	0.00
F02WM	17	-1.46	0.11	3.0	0.92	0.27	0.00
F02WM	18	1.55	0.06	-0.4	0.47	0.44	0.00
F02WM	19	1.76	0.07	-1.1	0.43	0.47	0.01
F02WM	35	-0.97	0.09	-2.4	0.88	0.43	0.00
F02WM	36	-0.55	0.08	-0.4	0.83	0.42	0.01
F02WM	37	1.78	0.07	7.9	0.43	0.25	0.00
F02WM	38	1.36	0.06	-3.8	0.51	0.52	0.01
F02WM	39	2.58	0.07	9.7*	0.29	0.21	0.00
F02WM	65	1.22	0.06	4.0	0.54	0.34	0.01
F02WM	66	2.45	0.07	2.0	0.31	0.38	0.01
F02WM	67	1.74	0.07	6.1*	0.44	0.28	0.01
F02WM	68	-0.80	0.09	2.8	0.86	0.31	0.00
F02WM	69	1.41	0.06	0.8	0.50	0.44	0.01
F03WM	15	4.58	0.12	4.3	0.08	0.16	0.00
F03WM	16	2.82	0.07	5.4*	0.26	0.23	0.01
F03WM	17	0.91	0.06	2.6	0.61	0.28	0.00
F03WM	18	-0.03	0.07	5.4*	0.77	0.21	0.01
F03WM	19	0.10	0.07	-1.2	0.75	0.40	0.00
F03WM	35	0.94	0.06	1.6	0.61	0.39	0.00
F03WM	36	1.93	0.06	-1.0	0.41	0.45	0.01
F03WM	37	-0.85	0.09	-1.9	0.87	0.38	0.00
F03WM	38	-0.31	0.08	-3.1	0.81	0.44	0.00

¹ Values with a “*” were flagged if outfit >+5.0.

Table 18–1 (continued). Mathematics—Multiple-Choice Items

Form	Seq	Logit	SE	Fit ¹	p-value	PtBis	Omits
F03WM	39	1.32	0.06	2.5	0.53	0.31	0.01
F03WM	65	-0.68	0.09	0.9	0.86	0.28	0.00
F03WM	66	-0.35	0.08	-4.0	0.82	0.50	0.01
F03WM	67	-1.08	0.10	-1.8	0.90	0.37	0.00
F03WM	68	1.28	0.06	1.6	0.54	0.35	0.01
F03WM	69	2.04	0.07	3.1	0.39	0.32	0.01
F04WM	15	-0.46	0.08	-1.0	0.83	0.36	0.00
F04WM	16	2.75	0.07	5.7*	0.27	0.27	0.00
F04WM	17	-1.78	0.12	-1.5	0.94	0.28	0.00
F04WM	18	0.31	0.07	-2.5	0.72	0.49	0.00
F04WM	19	1.60	0.06	4.6	0.48	0.28	0.00
F04WM	35	5.30	0.15	6.3*	0.04	-0.01	0.00
F04WM	36	1.46	0.06	6.5*	0.51	0.24	0.00
F04WM	37	0.06	0.07	-3.4	0.76	0.50	0.00
F04WM	38	2.30	0.07	-0.8	0.34	0.45	0.00
F04WM	39	2.77	0.07	1.9	0.27	0.39	0.00
F04WM	65	1.32	0.06	9.9*	0.53	0.13	0.00
F04WM	66	2.43	0.07	9.9*	0.32	0.13	0.00
F04WM	67	1.45	0.06	5.1*	0.51	0.28	0.01
F04WM	68	0.89	0.06	0.1	0.62	0.40	0.00
F04WM	69	0.54	0.07	-6.9	0.68	0.61	0.01
F05WM	15	1.81	0.06	-4.1	0.44	0.53	0.01
F05WM	16	-0.10	0.07	-2.4	0.78	0.45	0.00
F05WM	17	-1.60	0.11	-1.3	0.93	0.34	0.00
F05WM	18	1.70	0.06	5.8*	0.46	0.28	0.01
F05WM	19	-0.68	0.09	-1.4	0.85	0.39	0.00
F05WM	35	1.12	0.06	4.5	0.57	0.28	0.01
F05WM	36	0.61	0.07	2.9	0.67	0.30	0.01
F05WM	37	0.18	0.07	2.5	0.74	0.35	0.00
F05WM	38	2.56	0.07	4.0	0.31	0.33	0.01
F05WM	39	0.90	0.06	-2.9	0.61	0.50	0.00
F05WM	65	-0.18	0.08	0.6	0.79	0.34	0.01
F05WM	66	0.65	0.07	-5.8	0.66	0.61	0.01
F05WM	67	-0.41	0.08	1.3	0.82	0.34	0.00
F05WM	68	0.56	0.07	1.3	0.67	0.36	0.01
F05WM	69	-0.43	0.08	-2.5	0.82	0.47	0.01
F06WM	15	-1.17	0.10	-1.8	0.91	0.32	0.00
F06WM	16	-0.01	0.08	-1.7	0.79	0.42	0.00
F06WM	17	-0.19	0.08	2.8	0.81	0.25	0.00
F06WM	18	0.68	0.07	0.8	0.68	0.38	0.00
F06WM	19	-1.70	0.13	-2.4	0.94	0.35	0.00
F06WM	35	1.90	0.06	3.8	0.44	0.32	0.00
F06WM	36	1.37	0.06	0.2	0.54	0.36	0.01
F06WM	37	1.97	0.06	3.8	0.43	0.32	0.00
F06WM	38	1.33	0.06	-0.2	0.55	0.39	0.00
F06WM	39	-1.54	0.12	-1.3	0.93	0.33	0.00

¹ Values with a “*” were flagged if outfit >+5.0.

Table 18–1 (continued). Mathematics—Multiple-Choice Items

Form	Seq	Logit	SE	Fit ¹	p-value	PtBis	Omits
F06WM	65	-0.46	0.08	-1.5	0.84	0.41	0.00
F06WM	66	3.20	0.08	6.8*	0.22	0.23	0.01
F06WM	67	1.85	0.06	0.4	0.45	0.38	0.00
F06WM	68	-0.37	0.08	-2.7	0.83	0.47	0.00
F06WM	69	0.09	0.07	-0.3	0.77	0.36	0.00
F07WM	15	4.02	0.09	7.1*	0.11	0.05	0.00
F07WM	16	0.02	0.07	-3.8	0.77	0.50	0.00
F07WM	17	2.07	0.06	2.2	0.39	0.38	0.00
F07WM	18	-0.17	0.08	-1.3	0.80	0.39	0.00
F07WM	19	0.72	0.07	-1.9	0.65	0.44	0.01
F07WM	35	1.99	0.06	3.7	0.41	0.29	0.01
F07WM	36	2.31	0.07	2.3	0.35	0.31	0.02
F07WM	37	0.58	0.07	5.3*	0.68	0.22	0.00
F07WM	38	0.57	0.07	-5.3	0.68	0.58	0.00
F07WM	39	0.74	0.07	2.4	0.65	0.31	0.01
F07WM	65	1.21	0.06	4.5	0.56	0.30	0.01
F07WM	66	0.38	0.07	-1.4	0.71	0.41	0.01
F07WM	67	1.42	0.06	9.9*	0.52	-0.06	0.01
F07WM	68	0.31	0.07	-3.9	0.73	0.49	0.01
F07WM	69	-0.18	0.08	-0.9	0.80	0.39	0.01

Table 18–2. Mathematics—Constructed-Response Items

Form	Seq	Max Pts	Logit	SE	Fit ¹	p-value ²	PtBis	Omits
F01WM	70	2	1.57	0.04	-4.9	0.48	0.62	0.06
F02WM	70	2	1.11	0.04	1.9	0.57	0.58	0.06
F03WM	70	2	1.96	0.04	6.9*	0.39	0.40	0.07
F04WM	70	2	0.77	0.04	8.8*	0.66	0.41	0.05
F05WM	70	2	1.65	0.04	-1.9	0.45	0.63	0.08
F06WM	70	4	2.05	0.03	-0.3	0.37	0.65	0.05
F07WM	70	4	2.35	0.03	-0.7	0.34	0.60	0.06

¹ Values with a “*” were flagged if outfit >+5.0.

² p-value = Mean Score/Maximum Score

READING

Table 18–3. Reading—Multiple-Choice Items

Form	Seq	Logit	SE	Fit ¹	p-value	PtBis	Omits
F01R	23	-0.52	0.09	-1.3	0.88	0.33	0.00
F01R	24	-2.43	0.19	-2.6	0.98	0.24	0.00
F01R	25	-0.03	0.08	-2.7	0.83	0.40	0.00
F01R	26	-1.51	0.12	-1.8	0.95	0.28	0.00
F01R	27	-0.14	0.08	2.6	0.84	0.25	0.00
F01R	28	0.12	0.07	-3.6	0.81	0.43	0.00
F01R	29	2.01	0.06	5.4*	0.47	0.22	0.00
F01R	30	2.71	0.06	9.9*	0.33	-0.04	0.00
F01R	31	2.06	0.06	3.4	0.46	0.29	0.00
F01R	32	0.80	0.06	-3.0	0.70	0.46	0.01
F02R	23	1.55	0.06	0.4	0.54	0.39	0.00
F02R	24	0.03	0.08	-2.5	0.80	0.50	0.00
F02R	25	1.02	0.07	-1.1	0.64	0.42	0.00
F02R	26	0.66	0.07	-4.6	0.70	0.53	0.01
F02R	27	0.78	0.07	-1.5	0.68	0.41	0.00
F02R	28	0.05	0.08	-0.1	0.80	0.34	0.00
F02R	29	1.54	0.06	-2.9	0.54	0.48	0.00
F02R	30	0.83	0.07	-2.1	0.67	0.44	0.01
F02R	31	-0.58	0.09	-0.7	0.87	0.44	0.01
F02R	32	0.98	0.07	2.7	0.65	0.32	0.01
F03R	23	0.27	0.07	1.2	0.78	0.31	0.01
F03R	24	-2.04	0.16	-3.3	0.97	0.32	0.00
F03R	25	-1.05	0.11	-1.1	0.92	0.31	0.00
F03R	26	-0.08	0.08	-2.8	0.83	0.45	0.01
F03R	27	1.33	0.06	-3.2	0.60	0.48	0.00
F03R	28	2.62	0.06	2.0	0.35	0.35	0.00
F03R	29	-0.75	0.10	-2.4	0.90	0.37	0.00
F03R	30	1.37	0.06	5.9*	0.59	0.22	0.00
F03R	31	0.85	0.07	5.1*	0.69	0.23	0.00
F03R	32	1.38	0.06	6.3*	0.59	0.21	0.01
F04R	23	0.51	0.07	3.0	0.75	0.25	0.00
F04R	24	1.41	0.06	8.3*	0.59	0.14	0.00
F04R	25	0.66	0.07	-2.0	0.72	0.41	0.00
F04R	26	1.40	0.06	4.1	0.59	0.27	0.00
F04R	27	-0.51	0.09	-1.7	0.88	0.35	0.00
F04R	28	0.72	0.07	3.2	0.71	0.31	0.00
F04R	29	-0.13	0.08	-5.6	0.84	0.55	0.00
F04R	30	1.38	0.06	0.3	0.59	0.37	0.00
F04R	31	0.90	0.07	-2.5	0.68	0.47	0.00
F04R	32	2.03	0.06	4.5	0.46	0.28	0.01
F05R	23	0.72	0.07	1.5	0.71	0.32	0.00

¹ Values with a “*” were flagged if outfit >+5.0.

Table 18–3 (continued). Reading—Multiple-Choice Items

Form	Seq	Logit	SE	Fit ¹	p-value	PtBis	Omits
F05R	24	0.96	0.06	0.7	0.67	0.32	0.00
F05R	25	0.46	0.07	4.2	0.75	0.26	0.00
F05R	26	-1.03	0.11	-4.2	0.92	0.43	0.00
F05R	27	0.05	0.08	-4.2	0.81	0.47	0.00
F05R	28	1.27	0.06	4.4	0.61	0.27	0.00
F05R	29	1.10	0.06	4.2	0.64	0.31	0.01
F05R	30	2.05	0.06	-6.6	0.46	0.56	0.00
F05R	31	-0.31	0.08	-2.0	0.85	0.40	0.00
F05R	32	0.83	0.07	-3.6	0.69	0.48	0.00
F06R	23	3.34	0.07	9.9*	0.22	-0.10	0.00
F06R	24	2.89	0.07	9.9*	0.30	-0.02	0.00
F06R	25	-1.42	0.13	-4.2	0.95	0.38	0.00
F06R	26	-0.05	0.08	2.6	0.83	0.25	0.00
F06R	27	0.58	0.07	-0.2	0.75	0.33	0.00
F06R	28	1.53	0.06	2.2	0.57	0.31	0.00
F06R	29	4.30	0.10	6.3*	0.11	0.02	0.00
F06R	30	1.51	0.06	-4.9	0.57	0.48	0.00
F06R	31	1.51	0.06	-1.6	0.57	0.40	0.01
F06R	32	2.65	0.06	9.9*	0.34	0.04	0.00
F07R	23	0.27	0.07	0.6	0.79	0.35	0.00
F07R	24	2.00	0.06	3.6	0.48	0.28	0.01
F07R	25	1.23	0.06	0.1	0.63	0.38	0.00
F07R	26	-0.31	0.09	-2.3	0.86	0.42	0.00
F07R	27	0.04	0.08	-3.0	0.82	0.46	0.00
F07R	28	0.36	0.07	-2.1	0.78	0.43	0.00
F07R	29	1.07	0.06	-1.1	0.66	0.39	0.00
F07R	30	-1.30	0.12	-2.9	0.94	0.39	0.00
F07R	31	-0.76	0.10	-3.4	0.90	0.43	0.00
F07R	32	1.71	0.06	-0.8	0.54	0.39	0.00

Table 18–4. Reading—Constructed-Response Items

Form	Seq	Max Pts	Logit	SE	Fit ¹	p-value ²	PtBis	Omits
F01R	33	2	1.07	0.05	-1.4	0.61	0.45	0.01
F02R	33	4	2.42	0.03	1.1	0.36	0.58	0.06
F03R	33	4	2.12	0.03	2.9	0.44	0.55	0.07
F04R	33	2	2.45	0.05	-1.1	0.39	0.48	0.02
F05R	33	2	2.89	0.05	1.4	0.29	0.43	0.03
F06R	33	4	2.09	0.03	3.7	0.45	0.54	0.08
F07R	33	4	2.50	0.03	9.9*	0.38	0.35	0.03

¹ Values with a “*” were flagged if outfit >+5.0.

² p-value = Mean Score/Maximum Score

WRITING

Table 18–5. Writing—Multiple-Choice Items

Form	Seq	Logit	SE	Fit ¹	p-value	PtBis	Omits
F01WM	26	0.30	0.06	0.8	0.75	0.30	0.00
F01WM	27	0.95	0.06	-0.5	0.64	0.38	0.00
F01WM	28	0.13	0.07	-1.3	0.78	0.39	0.00
F01WM	29	1.87	0.06	3.8	0.46	0.30	0.01
F01WM	30	2.08	0.06	4.9	0.42	0.29	0.01
F01WM	31	1.80	0.06	9.9*	0.48	0.14	0.01
F01WM	32	-0.10	0.07	-4.7	0.81	0.49	0.00
F01WM	33	0.66	0.06	1.1	0.70	0.32	0.00
F01WM	34	0.48	0.06	-1.4	0.73	0.37	0.00
F01WM	35	1.13	0.06	0.7	0.61	0.36	0.00
F01WM	36	1.89	0.06	0.7	0.46	0.35	0.00
F02WM	26	0.77	0.07	-1.1	0.66	0.38	0.00
F02WM	27	1.31	0.06	3.7	0.56	0.25	0.00
F02WM	28	1.28	0.06	-0.4	0.56	0.36	0.00
F02WM	29	0.50	0.07	-0.8	0.71	0.36	0.01
F02WM	30	2.08	0.06	8.6*	0.40	0.12	0.00
F02WM	31	0.42	0.07	3.3	0.72	0.22	0.01
F02WM	32	1.39	0.06	4.4	0.54	0.26	0.01
F02WM	33	1.40	0.06	2.0	0.54	0.28	0.01
F02WM	34	0.33	0.07	-1.8	0.74	0.40	0.00
F02WM	35	2.10	0.06	6.7*	0.39	0.18	0.00
F02WM	36	1.12	0.06	0.9	0.59	0.32	0.00
F03WM	26	-0.65	0.09	-2.7	0.88	0.34	0.00
F03WM	27	-0.30	0.08	-3.7	0.84	0.43	0.00
F03WM	28	-0.86	0.10	-2.2	0.90	0.38	0.00
F03WM	29	1.49	0.06	0.6	0.55	0.35	0.00
F03WM	30	1.68	0.06	2.3	0.51	0.31	0.01
F03WM	31	-0.40	0.08	-2.8	0.85	0.38	0.00
F03WM	32	0.88	0.07	1.3	0.66	0.32	0.00
F03WM	33	-1.04	0.10	-2.8	0.91	0.33	0.00
F03WM	34	0.53	0.07	-0.7	0.72	0.35	0.00
F03WM	35	-0.33	0.08	-1.3	0.84	0.33	0.00
F03WM	36	1.05	0.06	-2.5	0.63	0.40	0.00
F04WM	26	0.32	0.07	-2.1	0.76	0.41	0.00
F04WM	27	1.60	0.06	1.7	0.53	0.30	0.01
F04WM	28	2.26	0.06	3.1	0.39	0.27	0.01
F04WM	29	0.33	0.07	0.3	0.76	0.29	0.01
F04WM	30	-0.34	0.08	-2.2	0.85	0.40	0.01
F04WM	31	1.15	0.06	6.3*	0.62	0.20	0.01
F04WM	32	-1.01	0.10	-0.3	0.91	0.28	0.00
F04WM	33	2.16	0.06	2.4	0.41	0.30	0.01

¹ Values with a “*” were flagged if outfit >+5.0.

Table 18–5 (continued). Writing—Multiple-Choice Items

Form	Seq	Logit	SE	Fit ¹	p-value	PtBis	Omits
F04WM	34	0.93	0.06	-1.0	0.66	0.37	0.00
F04WM	35	-0.29	0.08	-1.7	0.84	0.40	0.00
F04WM	36	1.25	0.06	3.5	0.60	0.23	0.00
F05WM	26	0.36	0.07	-0.1	0.74	0.37	0.01
F05WM	27	1.14	0.06	0.0	0.61	0.33	0.01
F05WM	28	-0.58	0.09	-2.6	0.87	0.38	0.00
F05WM	29	0.70	0.07	-1.8	0.69	0.39	0.01
F05WM	30	-0.21	0.08	-1.2	0.83	0.42	0.01
F05WM	31	-1.01	0.10	-4.0	0.90	0.49	0.01
F05WM	32	-0.63	0.09	-0.6	0.87	0.31	0.00
F05WM	33	-1.73	0.13	-0.5	0.95	0.33	0.01
F05WM	34	4.28	0.10	9.9*	0.11	0.04	0.00
F05WM	35	-0.17	0.08	-2.0	0.82	0.38	0.00
F05WM	36	0.84	0.06	6.4*	0.66	0.20	0.00
F06WM	26	3.08	0.07	-0.8	0.26	0.37	0.00
F06WM	27	1.58	0.06	-3.8	0.54	0.42	0.00
F06WM	28	0.76	0.07	-2.9	0.70	0.39	0.00
F06WM	29	0.25	0.07	-0.5	0.78	0.33	0.00
F06WM	30	0.58	0.07	-3.6	0.73	0.41	0.00
F06WM	31	2.01	0.06	4.6	0.45	0.21	0.00
F06WM	32	-0.37	0.09	-1.3	0.86	0.34	0.00
F06WM	33	-0.12	0.08	0.2	0.83	0.28	0.00
F06WM	34	1.27	0.06	4.1	0.60	0.21	0.00
F06WM	35	2.72	0.07	6.4*	0.32	0.18	0.00
F06WM	36	0.54	0.07	-0.6	0.74	0.38	0.00
F07WM	26	0.38	0.07	-0.7	0.75	0.39	0.00
F07WM	27	0.19	0.07	2.5	0.78	0.22	0.00
F07WM	28	-0.16	0.08	-4.4	0.82	0.46	0.00
F07WM	29	1.07	0.06	9.1*	0.63	0.13	0.00
F07WM	30	0.86	0.06	1.3	0.67	0.31	0.00
F07WM	31	1.10	0.06	-2.6	0.62	0.41	0.01
F07WM	32	2.15	0.06	9.9*	0.41	0.08	0.00
F07WM	33	0.67	0.07	-1.6	0.70	0.37	0.00
F07WM	34	0.87	0.06	0.1	0.66	0.32	0.00
F07WM	35	0.24	0.07	-3.0	0.77	0.45	0.00
F07WM	36	0.08	0.07	-2.9	0.79	0.42	0.00

¹ Values with a “*” were flagged if outfit >+5.0.

Table 18–6. Writing—Constructed-Response Items

Form	Seq	Max Pts	Logit	SE	Fit ¹	p-value ²	PtBis	Omits
F01WM	24	2	1.27	0.04	0.6	0.58	0.54	0.04
F01WM	25	4	1.32	0.04	-1.2	0.45	0.58	0.04
F02WM	24	2	1.87	0.05	-4.5	0.46	0.54	0.03
F02WM	25	4	1.53	0.04	-0.5	0.41	0.55	0.06
F03WM	24	2	2.05	0.04	-4.0	0.43	0.54	0.04
F03WM	25	4	1.47	0.04	-2.1	0.43	0.60	0.05
F04WM	24	2	2.90	0.05	-0.3	0.21	0.38	0.04
F04WM	25	4	1.02	0.04	-1.6	0.50	0.54	0.02
F05WM	24	2	2.90	0.05	1.6	0.21	0.34	0.04
F05WM	25	4	1.46	0.04	-2.2	0.43	0.62	0.08
F06WM	24	2	0.34	0.05	-3.1	0.75	0.52	0.02
F06WM	25	4	1.70	0.04	-2.0	0.38	0.57	0.03
F07WM	24	2	1.24	0.04	1.1	0.61	0.49	0.02
F07WM	25	4	1.39	0.04	-5.0	0.45	0.65	0.04

¹ Values with a “*” were flagged if outfit >+5.0.

² p-value = Mean Score/Maximum Score