

Appendix H—RAW TO SCALED SCORE CORRESPONDENCE

Table H-1. 2009 MEPA: Composite Raw Score to Scaled Score Correspondence— Grade Span K–2

<i>Raw score</i>	<i>Session A</i>		<i>Session B</i>		<i>Raw score</i>	<i>Session A</i>		<i>Session B</i>	
	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>		<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>
0	-4.00	400	-4.00	400	32	-0.75	465	-0.30	474
1	-3.96	401	-3.35	413	33	-0.68	466	-0.24	475
2	-3.50	410	-2.92	422	34	-0.62	467	-0.18	476
3	-3.22	416	-2.66	427	35	-0.55	469	-0.12	477
4	-3.01	420	-2.47	431	36	-0.48	470	-0.06	478
5	-2.84	423	-2.31	434	37	-0.40	472	-0.01	480
6	-2.69	426	-2.18	436	38	-0.33	473	0.05	481
7	-2.56	429	-2.06	439	39	-0.25	475	0.11	482
8	-2.45	431	-1.95	441	40	-0.17	476	0.18	483
9	-2.35	433	-1.85	443	41	-0.09	478	0.24	484
10	-2.25	435	-1.76	445	42	0.00	480	0.30	486
11	-2.17	437	-1.67	446	43	0.10	482	0.37	487
12	-2.08	438	-1.59	448	44	0.20	484	0.44	488
13	-2.00	440	-1.51	450	45	0.30	486	0.51	490
14	-1.93	441	-1.43	451	46	0.42	488	0.58	491
15	-1.86	443	-1.36	452	47	0.55	491	0.66	493
16	-1.79	444	-1.29	454	48	0.70	494	0.74	495
17	-1.72	446	-1.22	455	49	0.86	497	0.83	496
18	-1.65	447	-1.15	457	50	1.05	499	0.92	498
19	-1.58	448	-1.08	458	51	1.27	499	1.02	500
20	-1.52	449	-1.01	460	52	1.57	499	1.12	502
21	-1.45	451	-0.95	461	53	2.04	499	1.24	504
22	-1.39	452	-0.89	462	54	4.00	499	1.37	507
23	-1.33	452	-0.82	463	55			1.52	510
24	-1.26	455	-0.76	465	56			1.69	513
25	-1.20	456	-0.70	465	57			1.90	518
26	-1.14	457	-0.64	467	58			2.16	523
27	-1.07	458	-0.58	468	59			2.49	529
28	-1.01	460	-0.53	469	60			2.92	538
29	-0.95	461	-0.47	470	61			3.52	550
30	-0.88	462	-0.41	472	62			4.00	550
31	-0.82	463	-0.35	473					

SS = scaled score

Table H-2. 2009 MEPA: Raw to Scaled Score Correspondence— Grade Span K–2

<i>Subcategory</i>	<i>Raw score</i>	<i>Session A</i>		<i>Session B</i>	
		Theta	SS	Theta	SS
Reading	0	-4.00	0	-4.00	0
	1	-3.67	1	-2.08	7
	2	-3.15	3	-1.59	9
	3	-2.80	5	-1.27	10
	4	-2.52	6	-1.01	11
	5	-2.28	6	-0.78	12
	6	-2.06	7	-0.57	13
	7	-1.86	8	-0.36	14
	8	-1.68	9	-0.15	14
	9	-1.50	9	0.07	15
	10	-1.33	10	0.30	16
	11	-1.15	11	0.57	17
	12	-0.97	11	0.91	18
	13	-0.78	12	1.41	20
	14	-0.57	13	4.00	30
	15	-0.32	14		
	16	-0.01	15		
	17	0.47	17		
	18	4.00	30		
Writing	0	-4.00	0	-4.00	0
	1	-2.21	7	-2.01	7
	2	-1.69	9	-1.55	9
	3	-1.35	10	-1.25	10
	4	-1.07	11	-1.03	11
	5	-0.84	12	-0.85	12
	6	-0.62	13	-0.69	12
	7	-0.40	13	-0.54	13
	8	-0.17	14	-0.41	13
	9	0.12	15	-0.27	14
	10	0.56	17	-0.14	14
	11	4.00	30	-0.01	15
	12			0.13	15
	13			0.27	16
	14			0.43	17
	15			0.60	17
	16			0.79	18
	17			1.02	19
	18			1.30	20
	19			1.67	21
	20			2.16	23
	21			2.74	25
	22			3.42	28
	23			4.00	30

SS = scaled score

Table H-3. 2009 MEPA: Composite Raw Score to Scaled Score Correspondence— Grade Span 3–4

Raw score	Sessions 1:2/1:2		Sessions 2:3/1:2		Sessions 1:2/2:3		Sessions 2:3/2:3	
	Theta	SS	Theta	SS	Theta	SS	Theta	SS
0	-4.72	400	-4.66	400	-4.74	400	-4.66	400
1	-4.62	400	-4.56	400	-4.61	400	-4.53	400
2	-4.51	400	-4.46	400	-4.47	400	-4.40	400
3	-4.41	400	-4.36	400	-4.34	400	-4.26	400
4	-4.31	400	-4.26	400	-4.20	400	-4.13	400
5	-4.21	400	-4.16	400	-4.07	400	-4.00	400
6	-4.11	400	-4.06	400	-3.92	402	-3.82	404
7	-4.01	400	-3.94	401	-3.75	405	-3.66	407
8	-3.88	402	-3.81	404	-3.60	408	-3.52	410
9	-3.76	405	-3.69	406	-3.47	411	-3.39	412
10	-3.65	407	-3.58	408	-3.34	413	-3.27	415
11	-3.54	409	-3.48	410	-3.22	416	-3.16	417
12	-3.44	411	-3.39	412	-3.11	418	-3.05	419
13	-3.35	413	-3.29	414	-3.00	420	-2.95	421
14	-3.26	415	-3.21	416	-2.90	422	-2.86	423
15	-3.17	417	-3.13	418	-2.80	424	-2.77	425
16	-3.09	418	-3.05	419	-2.70	426	-2.68	426
17	-3.01	420	-2.97	421	-2.61	428	-2.60	428
18	-2.93	422	-2.89	422	-2.53	430	-2.52	430
19	-2.85	423	-2.82	424	-2.44	431	-2.44	431
20	-2.77	425	-2.75	425	-2.36	433	-2.37	433
21	-2.70	426	-2.68	426	-2.28	435	-2.29	434
22	-2.63	428	-2.62	428	-2.20	436	-2.22	436
23	-2.56	429	-2.55	429	-2.12	438	-2.15	437
24	-2.49	430	-2.48	430	-2.05	439	-2.08	438
25	-2.42	431	-2.42	431	-1.97	441	-2.01	440
26	-2.35	433	-2.36	433	-1.90	442	-1.95	441
27	-2.28	435	-2.29	434	-1.83	444	-1.88	443
28	-2.21	436	-2.23	435	-1.76	445	-1.81	444
29	-2.15	437	-2.17	437	-1.69	446	-1.75	445
30	-2.08	439	-2.11	438	-1.62	448	-1.68	446
31	-2.01	440	-2.05	439	-1.55	449	-1.62	448
32	-1.95	441	-1.99	440	-1.48	450	-1.55	449
33	-1.88	442	-1.92	442	-1.42	452	-1.49	450
34	-1.82	444	-1.86	443	-1.35	453	-1.43	451
35	-1.75	445	-1.80	444	-1.28	455	-1.36	453
36	-1.68	446	-1.74	445	-1.21	456	-1.30	454
37	-1.62	448	-1.68	447	-1.15	457	-1.23	455
38	-1.55	449	-1.62	448	-1.08	459	-1.17	457
39	-1.48	450	-1.55	449	-1.01	460	-1.11	458
40	-1.42	452	-1.49	450	-0.94	461	-1.04	459
41	-1.35	453	-1.43	451	-0.87	463	-0.98	461
42	-1.28	455	-1.36	453	-0.80	464	-0.91	462
43	-1.21	456	-1.30	454	-0.74	465	-0.84	463
44	-1.14	457	-1.23	456	-0.66	467	-0.78	465
45	-1.07	459	-1.16	457	-0.59	468	-0.71	466
46	-0.99	460	-1.10	458	-0.52	470	-0.64	467

continued

<i>Raw score</i>	<i>Sessions 1:2/1:2</i>		<i>Sessions 2:3/1:2</i>		<i>Sessions 1:2/2:3</i>		<i>Sessions 2:3/2:3</i>	
	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>
47	-0.92	462	-1.03	460	-0.45	471	-0.57	469
48	-0.85	463	-0.96	461	-0.37	473	-0.50	470
49	-0.77	465	-0.89	462	-0.30	474	-0.42	472
50	-0.70	466	-0.82	464	-0.22	476	-0.35	473
51	-0.62	468	-0.74	465	-0.14	477	-0.27	475
52	-0.54	469	-0.67	467	-0.06	479	-0.20	476
53	-0.46	471	-0.59	468	0.02	481	-0.12	478
54	-0.37	473	-0.51	470	0.11	482	-0.03	480
55	-0.29	474	-0.43	472	0.19	484	0.05	481
56	-0.20	476	-0.35	473	0.28	486	0.14	483
57	-0.11	478	-0.26	475	0.38	488	0.23	485
58	-0.01	480	-0.17	477	0.47	490	0.33	487
59	0.08	482	-0.08	479	0.57	492	0.42	489
60	0.18	484	0.02	481	0.67	494	0.52	491
61	0.29	486	0.12	483	0.77	496	0.63	493
62	0.40	488	0.23	485	0.88	498	0.74	495
63	0.51	490	0.34	487	0.99	500	0.85	497
64	0.63	493	0.45	489	1.11	502	0.97	499
65	0.75	495	0.57	492	1.23	505	1.09	499
66	0.88	498	0.70	494	1.35	507	1.22	499
67	1.01	499	0.84	497	1.48	510	1.36	499
68	1.15	499	0.98	499	1.62	513	1.51	499
69	1.30	499	1.14	499	1.76	516	1.66	499
70	1.46	499	1.31	499	1.92	519	1.84	499
71	1.63	499	1.49	499	2.08	522	2.03	499
72	1.82	499	1.70	499	2.27	526	2.24	499
73	2.03	499	1.94	499	2.47	530	2.49	499
74	2.27	499	2.24	499	2.69	534	2.79	499
75	2.56	499	2.64	499	2.95	539	3.19	499
76	2.91	499	3.29	499	3.26	546	3.79	499
77	3.37	499	4.00	499	3.67	550	4.00	499
78	4.00	499			4.00	550		
79	4.00	499			4.00	550		

SS = scaled score

**Table H-4. 2009 MEPA: Raw to
Scaled Score Correspondence— Grade Span 3–4**

<i>Raw score</i>	<i>Reading 1:2</i>		<i>Reading 2:3</i>		<i>Writing 1:2</i>		<i>Writing 2:3</i>	
	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>
0	-4.64	0	-4.64	0	-4.44	0	-4.67	0
1	-4.38	0	-3.84	1	-4.04	0	-4.26	0
2	-4.12	0	-3.11	3	-3.51	2	-3.79	1
3	-3.81	1	-2.69	5	-3.16	3	-3.35	2
4	-3.51	2	-2.39	6	-2.89	4	-3.01	4
5	-3.27	3	-2.16	7	-2.66	5	-2.72	5
6	-3.06	4	-1.95	8	-2.45	6	-2.45	6
7	-2.87	4	-1.77	8	-2.26	7	-2.20	7
8	-2.69	5	-1.60	9	-2.07	7	-1.95	8
9	-2.52	6	-1.44	10	-1.88	8	-1.71	9
10	-2.36	6	-1.29	10	-1.69	9	-1.48	9
11	-2.20	7	-1.13	11	-1.50	9	-1.24	10
12	-2.05	7	-0.98	11	-1.30	10	-1.01	11
13	-1.90	8	-0.82	12	-1.11	11	-0.78	12
14	-1.75	8	-0.66	13	-0.90	12	-0.55	13
15	-1.60	9	-0.50	13	-0.70	12	-0.32	14
16	-1.44	10	-0.32	14	-0.48	13	-0.07	15
17	-1.28	10	-0.13	15	-0.24	14	0.20	16
18	-1.11	11	0.07	15	0.02	15	0.48	17
19	-0.93	11	0.29	16	0.32	16	0.80	18
20	-0.74	12	0.52	17	0.68	18	1.16	19
21	-0.53	13	0.79	18	1.13	19	1.56	21
22	-0.30	14	1.08	19	1.73	21	2.00	22
23	-0.03	15	1.40	20	2.62	25	2.49	24
24	0.30	16	1.77	22	4.00	30	3.06	26
25	0.70	18	2.19	23			3.85	29
26	1.24	20	2.69	25			4.00	30
27	2.09	23	3.40	28				
28	4.00	30	4.00	30				

SS = scaled score

Table H-5. 2009 MEPA: Composite Raw Score to Scaled Score Correspondence— Grade Span 5–6

Raw score	Sessions 1:2/1:2		Sessions 2:3/1:2		Sessions 1:2/2:3		Sessions 2:3/2:3	
	Theta	SS	Theta	SS	Theta	SS	Theta	SS
0	-4.71	400	-4.62	400	-4.67	400	-4.57	400
1	-4.59	400	-4.52	400	-4.52	400	-4.44	400
2	-4.47	400	-4.41	400	-4.36	400	-4.31	400
3	-4.35	400	-4.31	400	-4.21	400	-4.18	400
4	-4.22	400	-4.20	400	-4.05	400	-4.05	400
5	-4.10	400	-4.09	400	-3.87	403	-3.88	402
6	-3.98	400	-3.98	400	-3.68	406	-3.71	406
7	-3.82	404	-3.83	403	-3.52	410	-3.56	409
8	-3.68	407	-3.70	406	-3.37	413	-3.43	411
9	-3.55	409	-3.58	408	-3.23	416	-3.31	414
10	-3.43	412	-3.47	411	-3.10	418	-3.20	416
11	-3.31	414	-3.37	413	-2.98	421	-3.10	418
12	-3.21	416	-3.28	415	-2.86	423	-3.00	420
13	-3.11	418	-3.19	416	-2.76	425	-2.91	422
14	-3.01	420	-3.10	418	-2.65	427	-2.82	424
15	-2.92	422	-3.03	420	-2.55	429	-2.74	425
16	-2.83	424	-2.95	421	-2.45	431	-2.66	427
17	-2.75	425	-2.88	423	-2.36	433	-2.58	429
18	-2.66	427	-2.80	424	-2.27	435	-2.50	430
19	-2.58	429	-2.74	425	-2.18	437	-2.43	432
20	-2.51	430	-2.67	427	-2.09	438	-2.35	433
21	-2.43	432	-2.60	428	-2.01	440	-2.28	435
22	-2.35	433	-2.54	429	-1.93	442	-2.20	436
23	-2.28	435	-2.47	431	-1.85	443	-2.13	438
24	-2.21	436	-2.41	432	-1.77	445	-2.06	439
25	-2.14	438	-2.35	433	-1.69	447	-1.99	441
26	-2.07	439	-2.29	435	-1.62	448	-1.91	442
27	-2.00	440	-2.22	436	-1.54	450	-1.84	443
28	-1.93	442	-2.16	437	-1.47	451	-1.77	445
29	-1.86	443	-2.10	438	-1.40	452	-1.70	446
30	-1.79	444	-2.04	440	-1.33	454	-1.63	448
31	-1.73	446	-1.98	441	-1.25	455	-1.56	449
32	-1.66	447	-1.92	442	-1.18	457	-1.49	451
33	-1.59	449	-1.86	443	-1.11	458	-1.42	452
34	-1.53	450	-1.79	444	-1.05	460	-1.36	453
35	-1.46	451	-1.73	446	-0.98	461	-1.29	455
36	-1.39	453	-1.67	447	-0.91	462	-1.22	456
37	-1.33	454	-1.61	448	-0.84	464	-1.15	457
38	-1.26	455	-1.55	449	-0.77	465	-1.09	459
39	-1.19	457	-1.48	451	-0.71	466	-1.02	460
40	-1.13	458	-1.42	452	-0.64	468	-0.95	461
41	-1.06	459	-1.36	453	-0.57	469	-0.88	463
42	-0.99	461	-1.29	455	-0.50	471	-0.82	464
43	-0.92	462	-1.23	455	-0.43	472	-0.75	466
44	-0.85	463	-1.16	457	-0.36	473	-0.68	467
45	-0.78	465	-1.10	459	-0.29	475	-0.61	468
46	-0.71	466	-1.03	460	-0.22	476	-0.54	470

continued

Raw score	Sessions 1:2/1:2		Sessions 2:3/1:2		Sessions 1:2/2:3		Sessions 2:3/2:3	
	Theta	SS	Theta	SS	Theta	SS	Theta	SS
47	-0.64	468	-0.96	461	-0.15	478	-0.47	471
48	-0.57	469	-0.90	463	-0.08	479	-0.40	473
49	-0.49	471	-0.83	464	0.00	481	-0.32	474
50	-0.42	472	-0.76	465	0.07	482	-0.25	476
51	-0.34	474	-0.68	467	0.15	484	-0.17	477
52	-0.26	475	-0.61	468	0.23	485	-0.09	478
53	-0.18	477	-0.53	470	0.30	487	-0.01	480
54	-0.10	478	-0.46	471	0.39	488	0.07	482
55	-0.01	480	-0.38	473	0.47	490	0.15	484
56	0.08	482	-0.29	475	0.55	492	0.24	485
57	0.17	484	-0.21	476	0.64	494	0.33	487
58	0.26	486	-0.12	478	0.73	495	0.42	489
59	0.36	488	-0.02	480	0.82	497	0.51	491
60	0.46	490	0.07	482	0.91	499	0.61	493
61	0.56	492	0.17	484	1.01	501	0.71	495
62	0.67	494	0.28	486	1.11	503	0.81	497
63	0.79	497	0.39	489	1.21	505	0.92	499
64	0.90	499	0.51	491	1.32	507	1.03	499
65	1.03	499	0.64	493	1.43	510	1.15	499
66	1.16	499	0.77	496	1.55	512	1.27	499
67	1.29	499	0.91	499	1.68	514	1.41	499
68	1.44	499	1.06	499	1.81	517	1.55	499
69	1.59	499	1.22	499	1.95	520	1.70	499
70	1.76	499	1.40	499	2.10	523	1.86	499
71	1.94	499	1.60	499	2.26	526	2.05	499
72	2.15	499	1.82	499	2.44	530	2.26	499
73	2.38	499	2.09	499	2.65	534	2.51	499
74	2.65	499	2.44	499	2.87	539	2.81	499
75	2.97	499	2.93	499	3.14	544	3.21	499
76	3.38	499	3.91	499	3.47	550	3.84	499
77	3.96	499	4.00	499	3.91	550	4.00	499
78	4.00	499			4.00	550		
79	4.00	499			4.00	550		

SS = scaled score

**Table H-6. 2009 MEPA: Raw to
Scaled Score Correspondence— Grade Span 5–6**

Raw score	Reading 1:2		Reading 2:3		Writing 1:2		Writing 2:3	
	Theta	SS	Theta	SS	Theta	SS	Theta	SS
0	-4.78	0	-4.66	0	-4.44	0	-4.67	0
1	-4.42	0	-3.58	2	-4.14	0	-4.20	0
2	-4.07	0	-2.84	4	-3.73	1	-3.65	1
3	-3.63	1	-2.40	6	-3.40	2	-3.20	3
4	-3.28	3	-2.08	7	-3.15	3	-2.86	4
5	-3.00	4	-1.82	8	-2.96	4	-2.56	5
6	-2.77	5	-1.60	9	-2.78	5	-2.28	6
7	-2.56	5	-1.40	10	-2.62	5	-2.02	7
8	-2.37	6	-1.22	10	-2.46	6	-1.77	8
9	-2.19	7	-1.04	11	-2.30	6	-1.53	9
10	-2.02	7	-0.88	12	-2.13	7	-1.29	10
11	-1.86	8	-0.72	12	-1.96	8	-1.06	11
12	-1.71	9	-0.56	13	-1.78	8	-0.83	12
13	-1.55	9	-0.40	14	-1.59	9	-0.60	13
14	-1.39	10	-0.24	14	-1.39	10	-0.36	14
15	-1.24	10	-0.07	15	-1.18	11	-0.11	15
16	-1.08	11	0.10	15	-0.97	11	0.15	16
17	-0.91	12	0.28	16	-0.74	12	0.43	17
18	-0.73	12	0.47	17	-0.49	13	0.73	18
19	-0.55	13	0.67	18	-0.19	14	1.06	19
20	-0.35	14	0.88	18	0.16	16	1.42	20
21	-0.12	15	1.12	19	0.62	17	1.81	22
22	0.14	16	1.38	20	1.25	20	2.24	23
23	0.44	17	1.67	21	2.17	23	2.72	25
24	0.82	18	2.00	23	4.00	30	3.30	27
25	1.32	20	2.39	24			4.00	30
26	2.06	23	2.87	26			4.00	30
27	3.35	28	3.58	28				
28	4.00	30	4.00	30				

SS = scaled score

Table H-7. 2009 MEPA: Composite Raw Score to Scaled Score Correspondence— Grade Span 7–8

Raw score	Sessions 1:2/1:2		Sessions 2:3/1:2		Sessions 1:2/2:3		Sessions 2:3/2:3	
	Theta	SS	Theta	SS	Theta	SS	Theta	SS
0	-4.72	400	-4.67	400	-4.60	400	-4.55	400
1	-4.57	400	-4.54	400	-4.42	400	-4.39	400
2	-4.43	400	-4.41	400	-4.23	400	-4.23	400
3	-4.29	400	-4.28	400	-4.05	400	-4.06	400
4	-4.15	400	-4.15	400	-3.80	404	-3.85	403
5	-4.01	400	-4.02	400	-3.59	408	-3.64	407
6	-3.81	404	-3.85	403	-3.40	412	-3.47	411
7	-3.65	407	-3.69	406	-3.24	415	-3.32	414
8	-3.50	410	-3.55	409	-3.09	418	-3.18	416
9	-3.36	413	-3.42	412	-2.95	421	-3.05	419
10	-3.24	415	-3.30	414	-2.82	424	-2.94	421
11	-3.12	418	-3.19	416	-2.70	426	-2.83	424
12	-3.01	420	-3.09	418	-2.59	428	-2.73	426
13	-2.90	422	-2.99	420	-2.48	430	-2.63	428
14	-2.80	424	-2.90	422	-2.38	432	-2.53	429
15	-2.70	426	-2.81	424	-2.28	434	-2.44	431
16	-2.61	428	-2.72	426	-2.19	436	-2.36	433
17	-2.52	430	-2.64	427	-2.10	438	-2.27	435
18	-2.43	431	-2.56	429	-2.01	440	-2.19	436
19	-2.35	433	-2.48	431	-1.93	442	-2.11	438
20	-2.26	435	-2.40	432	-1.84	443	-2.04	439
21	-2.18	437	-2.33	434	-1.76	445	-1.96	441
22	-2.10	438	-2.26	435	-1.68	447	-1.88	442
23	-2.02	440	-2.18	436	-1.60	448	-1.81	444
24	-1.95	441	-2.11	438	-1.53	450	-1.74	445
25	-1.87	443	-2.04	439	-1.45	451	-1.67	447
26	-1.79	444	-1.97	441	-1.38	453	-1.59	448
27	-1.72	446	-1.90	442	-1.30	454	-1.52	450
28	-1.65	447	-1.84	443	-1.23	456	-1.45	451
29	-1.57	449	-1.77	445	-1.16	457	-1.39	453
30	-1.50	450	-1.70	446	-1.08	459	-1.32	454
31	-1.43	452	-1.63	448	-1.01	460	-1.25	455
32	-1.35	453	-1.57	449	-0.94	461	-1.18	457
33	-1.28	455	-1.50	450	-0.87	463	-1.11	458
34	-1.21	456	-1.43	452	-0.80	464	-1.04	459
35	-1.14	457	-1.37	453	-0.73	466	-0.98	461
36	-1.07	459	-1.30	454	-0.66	467	-0.91	462
37	-0.99	460	-1.23	456	-0.59	468	-0.84	463
38	-0.92	462	-1.16	457	-0.52	470	-0.77	465
39	-0.85	463	-1.10	458	-0.45	471	-0.71	466
40	-0.78	465	-1.03	460	-0.38	473	-0.64	467
41	-0.71	466	-0.96	461	-0.31	474	-0.57	469
42	-0.63	468	-0.89	462	-0.24	475	-0.50	470
43	-0.56	469	-0.82	464	-0.17	477	-0.43	472
44	-0.48	471	-0.75	465	-0.10	478	-0.36	473
45	-0.41	472	-0.68	467	-0.03	480	-0.29	474
46	-0.33	474	-0.61	468	0.04	481	-0.22	476

continued

Raw score	Sessions 1:2/1:2		Sessions 2:3/1:2		Sessions 1:2/2:3		Sessions 2:3/2:3	
	Theta	SS	Theta	SS	Theta	SS	Theta	SS
47	-0.26	475	-0.54	470	0.11	483	-0.15	477
48	-0.18	477	-0.46	471	0.19	484	-0.08	479
49	-0.10	478	-0.39	473	0.26	485	0.00	480
50	-0.02	480	-0.31	474	0.34	487	0.08	482
51	0.06	481	-0.23	476	0.41	489	0.15	483
52	0.14	483	-0.15	477	0.49	490	0.23	485
53	0.22	485	-0.07	479	0.57	492	0.31	487
54	0.31	487	0.01	481	0.65	493	0.40	488
55	0.40	488	0.10	482	0.74	495	0.48	490
56	0.48	490	0.19	484	0.82	497	0.57	492
57	0.58	492	0.28	486	0.91	499	0.66	494
58	0.67	494	0.38	488	1.00	500	0.76	496
59	0.77	496	0.48	490	1.09	502	0.86	498
60	0.87	498	0.58	492	1.19	504	0.96	499
61	0.97	499	0.69	494	1.29	506	1.06	499
62	1.08	499	0.80	496	1.39	508	1.17	499
63	1.19	499	0.92	499	1.49	510	1.29	499
64	1.30	499	1.04	499	1.60	512	1.40	499
65	1.42	499	1.17	499	1.72	515	1.53	499
66	1.55	499	1.31	499	1.84	517	1.66	499
67	1.68	499	1.45	499	1.96	520	1.80	499
68	1.82	499	1.61	499	2.10	522	1.96	499
69	1.97	499	1.77	499	2.24	525	2.12	499
70	2.13	499	1.96	499	2.40	529	2.30	499
71	2.31	499	2.17	499	2.57	532	2.51	499
72	2.51	499	2.41	499	2.76	536	2.75	499
73	2.73	499	2.70	499	2.97	540	3.02	499
74	2.99	499	3.08	499	3.20	545	3.36	499
75	3.28	499	3.59	499	3.46	550	3.79	499
76	3.64	499	4.00	499	3.77	550	4.00	499
77	4.00	499	4.00	499	4.00	550	4.00	499
78	4.00	499			4.00	550		
79	4.00	499			4.00	550		

SS = scaled score

Table H-8. 2009 MEPA: Raw to Scaled Score Correspondence— Grade Span 7–8

<i>Raw score</i>	<i>Reading 1:2</i>		<i>Reading 2:3</i>		<i>Writing 1:2</i>		<i>Writing 2:3</i>	
	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>
0	-4.97	0	-4.77	0	-4.49	0	-4.62	0
1	-4.59	0	-3.66	1	-4.05	0	-3.99	0
2	-4.21	0	-2.83	4	-3.48	2	-3.27	3
3	-3.78	1	-2.33	6	-3.12	3	-2.84	4
4	-3.38	2	-1.97	8	-2.84	4	-2.51	6
5	-3.05	4	-1.68	9	-2.62	5	-2.24	7
6	-2.76	5	-1.43	10	-2.42	6	-2.00	7
7	-2.50	6	-1.21	10	-2.23	7	-1.78	8
8	-2.25	7	-1.01	11	-2.06	7	-1.56	9
9	-2.01	7	-0.82	12	-1.88	8	-1.34	10
10	-1.79	8	-0.63	13	-1.71	9	-1.12	11
11	-1.57	9	-0.46	13	-1.54	9	-0.90	12
12	-1.37	10	-0.28	14	-1.37	10	-0.68	12
13	-1.16	11	-0.11	15	-1.19	11	-0.46	13
14	-0.96	11	0.07	15	-1.01	11	-0.24	14
15	-0.75	12	0.25	16	-0.81	12	-0.01	15
16	-0.55	13	0.44	17	-0.61	13	0.23	16
17	-0.33	14	0.64	17	-0.40	14	0.49	17
18	-0.10	15	0.85	18	-0.16	14	0.77	18
19	0.14	16	1.07	19	0.12	15	1.08	19
20	0.40	17	1.31	20	0.46	17	1.43	20
21	0.69	18	1.57	21	0.91	18	1.82	22
22	1.02	19	1.85	22	1.60	21	2.27	23
23	1.38	20	2.17	23	2.74	25	2.78	25
24	1.80	22	2.52	24	4.00	30	3.35	28
25	2.31	24	2.94	26			4.00	30
26	2.98	26	3.46	28			4.00	30
27	4.00	30	4.00	30				
28	4.00	30	4.00	30				

SS = scaled score

Table H-9. 2009 MEPA: Composite Raw Score to Scaled Score Correspondence— Grade Span 9–12

Raw score	Sessions 1:2/1:2		Sessions 2:3/1:2		Sessions 1:2/2:3		Sessions 2:3/2:3	
	Theta	SS	Theta	SS	Theta	SS	Theta	SS
0	-4.50	400	-4.48	400	-4.55	400	-4.52	400
1	-4.31	400	-4.29	400	-4.32	400	-4.30	400
2	-4.12	400	-4.11	400	-4.09	400	-4.08	400
3	-3.89	402	-3.88	402	-3.81	404	-3.80	404
4	-3.65	407	-3.64	407	-3.55	409	-3.54	409
5	-3.45	411	-3.44	411	-3.33	413	-3.33	413
6	-3.27	415	-3.27	415	-3.14	417	-3.15	417
7	-3.12	418	-3.12	418	-2.97	421	-2.98	420
8	-2.98	420	-2.99	420	-2.82	424	-2.84	423
9	-2.86	423	-2.87	423	-2.67	427	-2.71	426
10	-2.74	425	-2.76	425	-2.54	429	-2.59	428
11	-2.63	427	-2.66	427	-2.42	432	-2.47	431
12	-2.53	429	-2.57	429	-2.31	434	-2.37	433
13	-2.44	431	-2.48	431	-2.20	436	-2.28	435
14	-2.35	433	-2.40	432	-2.10	438	-2.19	436
15	-2.27	435	-2.32	434	-2.00	440	-2.10	438
16	-2.19	436	-2.25	435	-1.91	442	-2.02	440
17	-2.11	438	-2.18	437	-1.83	444	-1.94	441
18	-2.04	440	-2.11	438	-1.74	445	-1.87	443
19	-1.96	441	-2.05	439	-1.66	447	-1.80	444
20	-1.90	442	-1.98	441	-1.58	449	-1.73	446
21	-1.83	444	-1.92	442	-1.51	450	-1.66	447
22	-1.76	445	-1.86	443	-1.43	452	-1.60	448
23	-1.70	446	-1.81	444	-1.36	453	-1.53	449
24	-1.64	448	-1.75	445	-1.29	455	-1.47	451
25	-1.57	449	-1.70	446	-1.22	456	-1.41	452
26	-1.51	449	-1.64	447	-1.15	457	-1.35	453
27	-1.45	451	-1.59	449	-1.08	459	-1.29	455
28	-1.39	452	-1.53	449	-1.02	460	-1.23	456
29	-1.33	454	-1.48	451	-0.95	461	-1.17	457
30	-1.28	455	-1.43	452	-0.89	463	-1.11	458
31	-1.22	456	-1.38	453	-0.82	463	-1.05	459
32	-1.16	457	-1.33	454	-0.76	465	-0.99	461
33	-1.10	458	-1.28	455	-0.70	466	-0.93	462
34	-1.05	459	-1.23	456	-0.63	468	-0.88	463
35	-0.99	461	-1.17	457	-0.57	469	-0.82	463
36	-0.93	462	-1.12	458	-0.51	470	-0.76	465
37	-0.87	463	-1.07	459	-0.44	472	-0.70	466
38	-0.82	463	-1.02	460	-0.38	473	-0.64	468
39	-0.76	465	-0.97	461	-0.32	474	-0.58	469
40	-0.70	466	-0.92	462	-0.25	475	-0.52	470
41	-0.64	468	-0.86	463	-0.19	477	-0.46	471
42	-0.58	469	-0.81	463	-0.13	478	-0.40	472
43	-0.52	470	-0.76	465	-0.06	479	-0.34	474
44	-0.46	471	-0.71	466	0.00	480	-0.28	475
45	-0.40	472	-0.65	467	0.07	482	-0.22	476
46	-0.34	474	-0.60	468	0.13	483	-0.15	477

continued

Raw score	Sessions 1:2/1:2		Sessions 2:3/1:2		Sessions 1:2/2:3		Sessions 2:3/2:3	
	Theta	SS	Theta	SS	Theta	SS	Theta	SS
47	-0.28	475	-0.54	470	0.20	484	-0.09	479
48	-0.22	476	-0.48	471	0.26	486	-0.02	480
49	-0.15	477	-0.43	472	0.33	487	0.05	481
50	-0.09	479	-0.37	473	0.40	488	0.12	483
51	-0.02	480	-0.31	474	0.47	490	0.19	484
52	0.05	481	-0.24	476	0.54	491	0.26	486
53	0.12	483	-0.18	477	0.61	493	0.34	487
54	0.19	484	-0.11	478	0.69	494	0.41	488
55	0.26	486	-0.04	480	0.76	496	0.49	490
56	0.34	487	0.03	481	0.84	497	0.58	492
57	0.41	488	0.10	483	0.91	499	0.66	494
58	0.49	490	0.18	484	0.99	500	0.75	496
59	0.57	492	0.26	486	1.07	502	0.84	497
60	0.65	494	0.34	487	1.15	504	0.93	499
61	0.74	495	0.43	489	1.24	505	1.03	499
62	0.83	497	0.52	491	1.32	507	1.13	499
63	0.92	499	0.62	493	1.41	509	1.23	499
64	1.01	499	0.72	495	1.50	511	1.34	499
65	1.11	499	0.83	497	1.60	513	1.45	499
66	1.21	499	0.95	499	1.70	515	1.57	499
67	1.32	499	1.07	499	1.80	517	1.69	499
68	1.43	499	1.20	499	1.91	519	1.82	499
69	1.54	499	1.34	499	2.02	521	1.97	499
70	1.66	499	1.49	499	2.14	524	2.12	499
71	1.79	499	1.65	499	2.27	526	2.29	499
72	1.93	499	1.83	499	2.42	529	2.49	499
73	2.08	499	2.03	499	2.58	532	2.72	499
74	2.26	499	2.27	499	2.77	536	3.02	499
75	2.45	499	2.59	499	2.99	541	3.42	499
76	2.70	499	3.12	499	3.26	546	4.00	499
77	3.03	499	4.00	499	3.64	550	4.00	499
78	3.57	499			4.00	550		
79	4.00	499			4.00	550		

SS = scaled score

**Table H-10. 2009 MEPA: Raw to
Scaled Score Correspondence— Grade Span 9–12**

<i>Raw score</i>	<i>Reading 1:2</i>		<i>Reading 2:3</i>		<i>Writing 1:2</i>		<i>Writing 2:3</i>	
	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>	<i>Theta</i>	<i>SS</i>
0	-4.48	0	-4.71	0	-4.32	0	-4.42	0
1	-3.75	1	-3.30	3	-3.13	3	-3.11	3
2	-3.14	3	-2.53	6	-2.66	5	-2.53	6
3	-2.78	5	-2.08	7	-2.37	6	-2.17	7
4	-2.52	6	-1.75	8	-2.15	7	-1.90	8
5	-2.30	6	-1.48	9	-1.97	8	-1.67	9
6	-2.11	7	-1.26	10	-1.81	8	-1.46	10
7	-1.95	8	-1.05	11	-1.67	9	-1.27	10
8	-1.79	8	-0.86	12	-1.54	9	-1.09	11
9	-1.65	9	-0.68	12	-1.40	10	-0.92	12
10	-1.51	9	-0.51	13	-1.27	10	-0.75	12
11	-1.37	10	-0.34	14	-1.15	11	-0.58	13
12	-1.24	10	-0.18	14	-1.02	11	-0.41	13
13	-1.11	11	-0.01	15	-0.88	12	-0.24	14
14	-0.97	11	0.16	16	-0.75	12	-0.06	15
15	-0.84	12	0.33	16	-0.61	13	0.12	15
16	-0.70	12	0.51	17	-0.47	13	0.31	16
17	-0.55	13	0.70	18	-0.31	14	0.50	17
18	-0.40	13	0.89	18	-0.14	14	0.71	18
19	-0.24	14	1.09	19	0.07	15	0.93	18
20	-0.07	15	1.30	20	0.31	16	1.17	19
21	0.13	15	1.52	21	0.62	17	1.42	20
22	0.35	16	1.77	22	1.06	19	1.71	21
23	0.60	17	2.04	23	1.73	21	2.04	23
24	0.89	18	2.35	24	4.00	30	2.44	24
25	1.25	20	2.73	25			3.04	26
26	1.71	21	3.22	27			4.00	30
27	2.41	24	3.95	30				
28	4.00	30	4.00	30				

SS = scaled score