

RIT Scale Norms for Early Primary Grades

Reading and Mathematics

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NORTHWEST EVALUATION ASSOCIATION (NWEA) began providing normative information about student performance on its tests in 1996. Since that first norming study, follow-up studies have been carried out every three years. The latest of these was in 2005. The next major norming study is scheduled to be completed in the summer of 2008. This document reports the results of an interim norming study limited to student performance in kindergarten through grade 2. The study was warranted by the recent development and calibration of test items appropriate for use with primary grade students. With these items available, NWEA developed a version Measures of Academic Progress (MAP) that is designed for students in primary grades. This test, MAP for Primary Grades, was first made available in spring 2006. More than 54,000 kindergarten through grade 2 students took the new downward extension of MAP tests in the fall and spring of the 2006-2007 academic year.

It is important to keep in mind that MAP for Primary Grades represents downward extensions of the NWEA RIT scales in reading and mathematics. That is, the RIT scores reported from MAP for Primary Grades tests are not different from the RIT scores reported from standard NWEA MAP scores. Both belong to the same underlying scales, but the MAP for Primary Grades tests allow student status to be estimated as early as the beginning of kindergarten, while the earliest standard MAP tests can commonly be used is beginning of grade 2. The level of precision of achievement estimates from MAP for Primary Grades is comparable to that of the regular MAP tests. Estimates of student achievement change (or academic growth), therefore, will correspond in their level of precision to those based on regular MAP tests. Moreover, change estimates can be made without regard to the test taken; that is, change scores may be calculated using either two standard MAP tests, two MAP for Primary Grades tests, or one MAP for Primary Grades and one standard MAP test.

This document provides achievement status norms for

students in kindergarten and first grade. These norms are provided based on test events from the fall 2006, winter 2007, and spring 2007 terms. Unlike the 2005 RIT Scale Norms, the winter norms are empirical rather than based on interpolations between fall and spring scores. Status norms for grade 2 students remain the same as they were under the 2005 norms because the quantity of data for MAP for Primary Grades is insignificant compared to the quantity of data in the 2005 norming study. Grade level fall-to-spring change norms are also provided. Rather than the RIT point growth norms that are provided in the 2005 norms, there were only adequate numbers of fall and spring test events to allow reporting of change by blocking on initial (fall) RIT score by a 10-point RIT range. Finally, RIT score-to-percentile rank conversion tables are provided for fall, winter, and spring, for both grades, and for both subjects.

Scoring procedures and conditions for inclusion

The procedures used for calculating the overall score for the domain in MAP for Primary

Grades tests are somewhat different than those used for standard MAP tests. For a standard MAP test, domain scores can be made available immediately after the student has responded to the last item. For the MAP for Primary Grades tests, only the partial-domain score can be made available since only half the goal areas in the domain are sampled in a single test. To compute the RIT score for the entire domain (referred to as the “combined score”), both partial-domain tests must be completed within 28 days of one another. A separate scoring process was used through spring 2007 to combine the response vectors from each partial test to score them as a single test. The resulting total score will be different than a simple average of the two partial domain scores except in the special case of when a student correctly answers exactly 50% of the items on each of the two partial-domain tests. Only entire domain RIT scores are used in this study.

All MAP for Primary Grades test events from fall 2006, winter 2007, and spring 2007 were considered for inclusion in the study. The initial pool of the events came from 312 school

districts in 39 states. To be included in the study, each test event had to meet two criteria:

- The percent of items answered correctly had to fall between 35% and 65%, inclusive. This criterion removed students who answered surprisingly few or surprisingly many items correctly but still provides a generous range for inclusion. (Roughly 95% of all standard MAP tests will have between 44% and 56%

of items answered correctly.)

- The test event had to have come from school districts in which 80% or more of their kindergarten and/or first grade students were tested with a MAP-PG test for both the fall 2006 and the spring 2007 test terms. This step was taken to minimize selection bias by eliminating scores coming from school districts in which only a selected sample of students was

tested (e.g., only at risk students, or students being considered for a talented and gifted program).

These two criteria reduced the total number of fall and spring test events to be included by about 36% of all of fall and spring test events available. The number of districts represented dropped by about half and the number of states represented was reduced by about 30%. Table 1 provides more detail about the effects of these procedures.

Table 1 Test events available and filtered by subject, term, and grade

Grade	Reading		Mathematics		Representing	
	Fall	Spring	Fall	Spring	Districts	States
	Test Events Available					
K	8,674	20,188	11,106	18,617		
1	27,959	35,829	28,412	32,519		
Total	36,633	56,017	39,518	51,136	312	39
	Test Events Filtered					
K	4,306	14,252	4,440	15,849		
1	15,847	25,109	14,275	23,672		
Total	20,153	39,361	18,715	39,521	151	28

Achievement change (growth) norms

Change scores in this norms update were restricted to fall-spring change by the nature of the data. These scores were calculated by simply subtracting

each student's fall RIT score from their spring RIT score. Table 2 provides the change score norms for both reading and mathematics. A breakdown of these scores by initial 10 point RIT block is provided in Table 3. Data in this table suggest that

different growth targets and criteria for evaluating growth will provide more sensitive information when they are based on the student's initial (fall) RIT score.

Table 2 Observed fall to spring growth means, standard deviations (SD), numbers of students (N), and mean initial RIT scores for primary grades students

Reading				
Grade	Mean	SD	N	Mean initial RIT score
K	10.8	7.22	4,000	147.7
1	14.1	7.51	13,551	159.2
2*	13.1	9.70	111,247	178.6

Mathematics				
Grade	Mean	SD	N	Mean initial RIT score
K	12.6	8.06	3,600	149.7
1	15.3	8.22	12,492	163.7
2*	13.9	7.90	126,625	178.5

* Data for grade 2 are taken from the 2005 norming study.

Table 3 Means, standard deviations (SD), and numbers of students (N) of fall to spring growth by initial RIT block

Grade	Reading																	
	130-139			140-149			150-159			160-169			170-179			180-189		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
K	11.6	6.42	229	10.8	7.27	2417	10.5	7.30	1114	10.6	6.93	204						
1				15.5	8.87	2097	15.4	7.63	4950	13.8	6.64	4474	10.6	5.34	1708	5.4	4.46	246

Grade	Mathematics																	
	130-139			140-149			150-159			160-169			170-179			180-189		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
K	14.0	8.33	345	13.1	8.53	1670	12.4	7.50	1056	10.8	7.04	445						
1	21.0	11.20	202	20.0	9.93	1555	17.6	8.12	2775	14.9	7.22	3935	12.6	6.57	2861	10.6	6.50	1007

The numbers of students (Ns) shown in the subject area-grade level cells in Table 2 do not agree with the row totals of the corresponding subject area-grade level cells in Table 3 because several of the 10 RIT point blocks with Ns less than 200 were omitted.

Status norms
Table 4 contains the means and standard deviations of the student achievement status for

reading and mathematics. Norms are provided for fall, winter, and spring. Data for grade 2 were taken from the

2005 norming study to provide a context for the K-1 results.

Table 4 Grade level medians (Med), means, standard deviations (SD), and numbers of students (N) for NWEA Primary Grades by season

Reading												
Grade	Fall				Winter				Spring			
	Med	Mean	SD	N	Med	Mean	SD	N	Med	Mean	SD	N
K	146	147.6	6.86	4,306	151	152.4	8.52	2,480	155	156.3	10.30	14,252
1	160	160.2	10.19	15,847	167	166.5	10.69	5,602	173	171.9	11.18	25,109
2*	178	177.2	15.00	143,033	184	182.7	14.66	interpolated	190	188.2	14.41	187,912

Mathematics												
Grade	Fall				Winter				Spring			
	Med	Mean	SD	N	Med	Mean	SD	N	Med	Mean	SD	N
K	148	149.5	8.75	4,440	152	153.1	9.98	2,708	158	158.1	12.08	15,849
1	164	163.4	12.18	14,275	171	169.9	12.33	5,520	178	176.7	12.79	23,672
2*	179	179.3	10.93	155,214	185	184.9	11.34	interpolated	191	190.2	11.68	190,362

* Data for grade 2 are taken from the 2005 norming study.

Discussion

This study was carried out to determine the mean performance of kindergarten and first grade students in reading and mathematics. Performance estimates were obtained from student responses to items presented in NWEA's MAP and MAP for Primary Grades tests. The tests were designed to test skills and concepts commonly part of early primary grade instruction in reading and mathematics.

While the purpose of the study was accomplished, there are a few points about the results that warrant mention. These points are largely based on observed differences in the characteristics of the norms reported here and those reported in prior NWEA norm studies.

One difference is that this is the first study in which we observe

score distributions that are slightly positively skewed (i.e., the mean is slightly higher than the median). These are present for the kindergarten results to varying degrees (see Table 4 above). We generally see slightly negatively skewed distributions. This finding suggests that the MAP for Primary Grades tests at the very lowest levels may not yet be able to consistently estimate very low student performance in a content area. However, the causes of these distributional changes are not clear. One possibility is that they are due to differences in the methods used to select test records for inclusion in the norms calculations. A combination of standard error of measurement (SEM) and percent correct at the low end were used in the 2005 norming study while only percent correct at the high and low ends was used in this study. Another possibility is simply the

nature of the samples of students included in each term. For example, in kindergarten the variance for reading increased roughly 50% from fall to spring, suggesting that the 4,300 students tested in the fall were much more homogeneous in their overall reading skills than the nearly 14,000 students in the spring. As variances approached the levels of the 2005 norms study, the slightly negatively skewed distributions were observed.

The results of this study are also the first time that observed fall-to-spring change (growth) was not higher for a particular grade than for the next higher grade. The kindergarten students in this study showed less fall-to-spring change than the first grade students in both reading and mathematics (see Table 2). The reason for this is an open question. One plausible reason

may be in the kindergarten sample sizes. They are three to five times smaller for reading and mathematics, respectively, than they are for grade 1. Another possibility is that the grade level mean differences, as well as for the sample size differences between kindergarten and grade 1, may be the result of structural differences between schools in the kindergarten experiences provided to kindergarteners. For example, some districts may offer only one-half day classes for kindergarteners while others may offer full day classes, and others may offer a combination. In addition, since kindergarteners are relatively new to the school experience, it may well take longer to prepare them for a testing experience. This could result in less instructional time between fall and spring test events. It could also result in teachers administering parts of the tests over a period that is longer than the 28 day maximum, thus not being 'combined' into a total domain score.

Appendix

RIT Score-to-Percentile Rank Conversions Tables

**Northwest Evaluation Association
Fall READING RIT Score to Percentile Rank Conversion**

%ile	Kdgn	Grade 1	Grade 2	%ile
1	138	140	151	1
2	138	142	152	2
3	139	143	152	3
4	139	144	153	4
5	139	144	154	5
6	139	145	154	6
7	140	146	155	7
8	140	146	156	8
9	140	147	156	9
10	140	147	157	10
11	140	148	157	11
12	141	148	158	12
13	141	149	158	13
14	141	149	159	14
15	141	149	159	15
16	141	150	160	16
17	141	150	160	17
18	141	150	161	18
19	142	151	162	19
20	142	151	162	20
21	142	151	163	21
22	142	152	163	22
23	142	152	164	23
24	142	152	164	24
25	142	153	165	25
26	143	153	166	26
27	143	153	166	27
28	143	154	167	28
29	143	154	167	29
30	143	154	168	30
31	143	154	168	31
32	143	155	169	32
33	144	155	169	33
34	144	155	170	34
35	144	156	170	35
36	144	156	171	36
37	144	156	172	37
38	144	156	172	38
39	144	157	173	39
40	145	157	173	40
41	145	157	173	41
42	145	157	174	42
43	145	158	174	43
44	145	158	175	44
45	145	158	175	45
46	146	158	176	46
47	146	159	176	47
48	146	159	177	48
49	146	159	177	49
50	146	160	178	50

%ile	Kdgn	Grade 1	Grade 2	%ile
51	146	160	178	51
52	147	160	179	52
53	147	160	179	53
54	147	161	180	54
55	147	161	180	55
56	147	161	180	56
57	147	161	181	57
58	148	162	181	58
59	148	162	182	59
60	148	162	182	60
61	148	163	183	61
62	148	163	183	62
63	149	163	184	63
64	149	163	184	64
65	149	164	184	65
66	149	164	185	66
67	150	164	185	67
68	150	165	186	68
69	150	165	186	69
70	150	165	187	70
71	150	166	187	71
72	151	166	188	72
73	151	166	188	73
74	151	167	189	74
75	152	167	189	75
76	152	167	189	76
77	152	168	190	77
78	152	168	190	78
79	153	168	191	79
80	153	169	191	80
81	153	169	192	81
82	154	170	192	82
83	154	170	193	83
84	154	171	193	84
85	155	171	194	85
86	155	172	195	86
87	155	172	195	87
88	156	173	196	88
89	156	173	197	89
90	157	174	197	90
91	157	175	198	91
92	158	176	199	92
93	159	177	199	93
94	159	177	200	94
95	160	178	201	95
96	162	180	202	96
97	163	181	204	97
98	166	183	206	98
99	170	185	209	99

**Northwest Evaluation Association
Winter READING RIT Score to Percentile Rank Conversion**

%ile	Kdgn	Grade 1	Grade 2	%ile
1	138	143	153	1
2	138	145	154	2
3	139	146	155	3
4	140	147	156	4
5	141	148	158	5
6	141	149	158	6
7	141	150	160	7
8	141	151	161	8
9	142	151	161	9
10	142	152	163	10
11	142	153	163	11
12	143	153	164	12
13	143	154	165	13
14	143	154	166	14
15	143	155	166	15
16	144	155	167	16
17	144	156	167	17
18	144	156	168	18
19	145	157	169	19
20	145	157	169	20
21	145	157	170	21
22	145	158	171	22
23	145	158	171	23
24	146	159	172	24
25	146	159	172	25
26	146	159	173	26
27	147	160	173	27
28	147	160	174	28
29	147	160	174	29
30	147	161	175	30
31	147	161	175	31
32	148	161	176	32
33	148	162	176	33
34	148	162	177	34
35	148	162	177	35
36	149	162	178	36
37	149	163	179	37
38	149	163	179	38
39	149	163	180	39
40	149	164	180	40
41	150	164	180	41
42	150	164	181	42
43	150	165	181	43
44	150	165	182	44
45	150	165	182	45
46	151	166	182	46
47	151	166	183	47
48	151	166	183	48
49	151	166	183	49
50	151	167	184	50

%ile	Kdgn	Grade 1	Grade 2	%ile
51	152	167	184	51
52	152	167	185	52
53	152	168	185	53
54	152	168	186	54
55	153	168	186	55
56	153	169	186	56
57	153	169	187	57
58	153	169	187	58
59	153	169	188	59
60	154	170	188	60
61	154	170	189	61
62	154	170	189	62
63	154	170	189	63
64	154	171	190	64
65	155	171	190	65
66	155	171	190	66
67	155	172	191	67
68	155	172	191	68
69	156	172	191	69
70	156	173	192	70
71	156	173	192	71
72	156	173	193	72
73	157	174	193	73
74	157	174	194	74
75	157	174	194	75
76	158	175	194	76
77	158	175	195	77
78	158	175	195	78
79	159	176	196	79
80	159	176	196	80
81	159	177	197	81
82	160	177	197	82
83	160	177	198	83
84	161	178	198	84
85	161	178	199	85
86	162	179	199	86
87	162	179	200	87
88	163	180	200	88
89	163	180	201	89
90	164	181	202	90
91	164	181	202	91
92	165	182	203	92
93	166	182	204	93
94	167	183	205	94
95	168	184	205	95
96	169	185	207	96
97	171	186	208	97
98	173	187	210	98
99	177	189	213	99

**Northwest Evaluation Association
Spring READING RIT Score to Percentile Rank Conversion**

%ile	Kdgn	Grade 1	Grade 2	%ile
1	138	143	154	1
2	138	146	156	2
3	139	149	157	3
4	140	150	159	4
5	141	152	161	5
6	141	153	162	6
7	142	154	164	7
8	142	155	165	8
9	143	156	166	9
10	143	157	168	10
11	144	157	169	11
12	144	158	170	12
13	145	159	171	13
14	145	159	172	14
15	146	160	173	15
16	146	161	174	16
17	146	161	174	17
18	147	162	175	18
19	147	162	176	19
20	147	162	176	20
21	148	163	177	21
22	148	163	178	22
23	148	164	178	23
24	149	164	179	24
25	149	165	179	25
26	149	165	180	26
27	149	165	180	27
28	150	166	181	28
29	150	166	181	29
30	150	167	182	30
31	151	167	182	31
32	151	167	183	32
33	151	168	183	33
34	151	168	184	34
35	152	168	184	35
36	152	169	184	36
37	152	169	185	37
38	152	169	185	38
39	153	170	186	39
40	153	170	186	40
41	153	170	186	41
42	153	171	187	42
43	154	171	187	43
44	154	171	188	44
45	154	171	188	45
46	154	172	188	46
47	155	172	189	47
48	155	172	189	48
49	155	173	189	49
50	155	173	190	50

%ile	Kdgn	Grade 1	Grade 2	%ile
51	156	173	190	51
52	156	174	191	52
53	156	174	191	53
54	156	174	191	54
55	157	174	192	55
56	157	175	192	56
57	157	175	192	57
58	158	175	193	58
59	158	176	193	59
60	158	176	193	60
61	158	176	194	61
62	159	176	194	62
63	159	177	194	63
64	159	177	195	64
65	159	177	195	65
66	160	178	195	66
67	160	178	196	67
68	160	178	196	68
69	161	179	196	69
70	161	179	197	70
71	161	179	197	71
72	162	179	198	72
73	162	180	198	73
74	162	180	198	74
75	163	180	199	75
76	163	181	199	76
77	164	181	199	77
78	164	181	200	78
79	164	182	200	79
80	165	182	201	80
81	165	182	201	81
82	166	183	201	82
83	166	183	202	83
84	167	183	202	84
85	167	184	203	85
86	168	184	203	86
87	168	185	204	87
88	169	185	204	88
89	169	185	205	89
90	170	186	206	90
91	171	186	206	91
92	172	187	207	92
93	173	187	208	93
94	174	188	209	94
95	175	188	209	95
96	176	189	211	96
97	178	190	212	97
98	180	191	214	98
99	183	192	216	99

**Northwest Evaluation Association
Fall MATHEMATICS RIT Score to Percentile Rank Conversion**

%ile	Kdgn	Grade 1	Grade 2	%ile
1	136	138	157	1
2	137	140	158	2
3	137	141	159	3
4	138	142	160	4
5	138	143	161	5
6	138	144	162	6
7	139	144	163	7
8	139	145	164	8
9	139	146	164	9
10	139	147	165	10
11	140	147	166	11
12	140	148	166	12
13	140	148	167	13
14	140	149	167	14
15	141	149	168	15
16	141	150	168	16
17	141	151	169	17
18	141	151	169	18
19	141	152	169	19
20	142	152	170	20
21	142	153	170	21
22	142	153	171	22
23	142	154	171	23
24	143	154	171	24
25	143	155	172	25
26	143	155	172	26
27	143	156	172	27
28	143	156	173	28
29	144	156	173	29
30	144	157	173	30
31	144	157	174	31
32	144	158	174	32
33	144	158	174	33
34	145	158	175	34
35	145	159	175	35
36	145	159	175	36
37	145	159	176	37
38	145	160	176	38
39	146	160	176	39
40	146	160	176	40
41	146	161	177	41
42	146	161	177	42
43	146	162	177	43
44	147	162	177	44
45	147	162	178	45
46	147	163	178	46
47	147	163	178	47
48	148	163	178	48
49	148	164	179	49
50	148	164	179	50

%ile	Kdgn	Grade 1	Grade 2	%ile
51	148	164	179	51
52	148	165	180	52
53	149	165	180	53
54	149	165	180	54
55	149	165	180	55
56	149	166	181	56
57	150	166	181	57
58	150	166	181	58
59	150	167	181	59
60	150	167	182	60
61	151	167	182	61
62	151	167	182	62
63	151	168	183	63
64	151	168	183	64
65	152	168	183	65
66	152	169	183	66
67	152	169	184	67
68	153	169	184	68
69	153	170	184	69
70	153	170	185	70
71	154	170	185	71
72	154	171	185	72
73	154	171	186	73
74	155	171	186	74
75	155	172	186	75
76	155	172	187	76
77	156	173	187	77
78	156	173	188	78
79	157	173	188	79
80	157	174	188	80
81	157	174	189	81
82	158	175	189	82
83	158	175	190	83
84	159	175	190	84
85	159	176	191	85
86	160	176	191	86
87	160	177	192	87
88	161	178	192	88
89	161	178	197	89
90	162	179	194	90
91	163	180	194	91
92	163	180	195	92
93	164	181	196	93
94	165	182	197	94
95	166	183	198	95
96	167	185	199	96
97	168	186	201	97
98	170	188	202	98
99	174	192	205	99

**Northwest Evaluation Association
Winter MATHEMATICS RIT Score to Percentile Rank Conversion**

%ile	Kdgn	Grade 1	Grade 2	%ile
1	136	140	160	1
2	137	142	162	2
3	138	144	163	3
4	138	146	165	4
5	139	147	166	5
6	139	149	167	6
7	140	150	168	7
8	140	151	169	8
9	141	152	170	9
10	141	153	170	10
11	141	153	171	11
12	142	155	172	12
13	142	155	172	13
14	142	156	173	14
15	142	157	173	15
16	143	157	174	16
17	143	158	174	17
18	143	158	175	18
19	144	159	175	19
20	144	160	176	20
21	144	160	176	21
22	144	161	177	22
23	145	161	177	23
24	145	162	177	24
25	145	162	178	25
26	145	163	178	26
27	146	163	178	27
28	146	163	179	28
29	146	164	179	29
30	147	164	179	30
31	147	165	180	31
32	147	165	180	32
33	147	165	180	33
34	148	166	181	34
35	148	166	181	35
36	148	167	181	36
37	148	167	182	37
38	149	167	182	38
39	149	167	182	39
40	149	168	182	40
41	150	168	183	41
42	150	169	183	42
43	150	169	183	43
44	150	169	183	44
45	151	169	184	45
46	151	170	184	46
47	151	170	184	47
48	152	170	185	48
49	152	171	185	49
50	152	171	185	50

%ile	Kdgn	Grade 1	Grade 2	%ile
51	152	171	186	51
52	153	172	186	52
53	153	172	186	53
54	153	172	186	54
55	154	172	187	55
56	154	173	187	56
57	154	173	187	57
58	154	173	188	58
59	155	174	188	59
60	155	174	188	60
61	155	174	188	61
62	156	174	189	62
63	156	175	189	63
64	156	175	189	64
65	156	175	190	65
66	157	175	190	66
67	157	176	190	67
68	157	176	191	68
69	158	176	191	69
70	158	177	191	70
71	158	177	191	71
72	159	177	192	72
73	159	178	192	73
74	159	178	192	74
75	160	178	193	75
76	160	179	193	76
77	161	179	193	77
78	161	179	194	78
79	162	180	194	79
80	162	180	194	80
81	163	181	195	81
82	163	181	195	82
83	163	181	196	83
84	164	182	196	84
85	164	182	197	85
86	165	183	197	86
87	165	183	198	87
88	166	184	198	88
89	166	184	201	89
90	167	185	200	90
91	167	186	200	91
92	168	186	201	92
93	169	187	202	93
94	170	188	203	94
95	171	189	204	95
96	172	190	205	96
97	174	191	206	97
98	176	193	208	98
99	180	196	211	99

**Northwest Evaluation Association
Spring MATHEMATICS RIT Score to Percentile Rank Conversion**

%ile	Kdgn	Grade 1	Grade 2	%ile
1	136	141	162	1
2	137	146	165	2
3	138	149	167	3
4	138	151	169	4
5	139	153	170	5
6	140	155	172	6
7	140	157	173	7
8	141	158	174	8
9	142	159	175	9
10	142	160	175	10
11	143	161	176	11
12	143	162	177	12
13	144	162	177	13
14	144	163	178	14
15	145	164	178	15
16	145	165	179	16
17	146	165	179	17
18	146	166	180	18
19	147	166	180	19
20	147	167	181	20
21	148	168	181	21
22	148	168	182	22
23	149	169	182	23
24	149	169	182	24
25	149	169	183	25
26	150	170	183	26
27	150	170	184	27
28	150	171	184	28
29	151	171	184	29
30	151	171	185	30
31	151	172	185	31
32	152	172	185	32
33	152	172	186	33
34	153	173	186	34
35	153	173	186	35
36	153	173	187	36
37	154	174	187	37
38	154	174	187	38
39	154	174	188	39
40	155	175	188	40
41	155	175	188	41
42	156	175	189	42
43	156	176	189	43
44	156	176	189	44
45	157	176	190	45
46	157	177	190	46
47	157	177	190	47
48	157	177	191	48
49	158	177	191	49
50	158	178	191	50

%ile	Kdgn	Grade 1	Grade 2	%ile
51	158	178	192	51
52	159	178	192	52
53	159	179	192	53
54	159	179	192	54
55	160	179	193	55
56	160	179	193	56
57	160	180	193	57
58	161	180	194	58
59	161	180	194	59
60	161	181	194	60
61	162	181	194	61
62	162	181	195	62
63	162	182	195	63
64	163	182	195	64
65	163	182	196	65
66	163	183	196	66
67	164	183	196	67
68	164	183	197	68
69	164	184	197	69
70	165	184	197	70
71	165	184	197	71
72	165	185	198	72
73	166	185	198	73
74	166	185	198	74
75	167	185	199	75
76	167	186	199	76
77	167	186	199	77
78	168	187	200	78
79	168	187	200	79
80	169	187	200	80
81	169	188	201	81
82	169	188	201	82
83	170	189	202	83
84	170	189	202	84
85	171	189	202	85
86	171	190	203	86
87	172	190	203	87
88	172	191	204	88
89	173	191	204	89
90	174	192	205	90
91	174	193	205	91
92	175	193	206	92
93	176	194	207	93
94	177	195	208	94
95	178	196	209	95
96	179	197	210	96
97	181	198	211	97
98	183	200	213	98
99	187	203	217	99