



Arkansas Comprehensive Testing, Assessment, and Accountability Program

**Fall Algebra I End-of-Course Examination
Raw to Scale Score Conversion Tables
September 2012 Administration**

Introduction

The *Raw to Scale Score Conversion Tables* provide information on raw scores attained by students for the *Fall Algebra I End-of-Course Examination*, and how those scores correspond with student scale scores.

The attached *Raw to Scale Score Conversion Tables* are specific to the September 2012 administration of the Fall Algebra I End-of-Course Examination and do NOT apply to any other administration.

What are Scale Scores?

Scale Scores are transformed raw scores. For every possible raw score on a test form, there is a corresponding scale score, although a scale score may represent more than one raw score depending on the distribution of the results. When multiple forms of a test are used, or when results are compared from year to year, scale scores are needed to adjust for possible differences in test form length or difficulty. For example, it would not be possible to interpret a raw score of 50 items correct or points earned without knowing how many items are on the test and how difficult those items are.

Why Use Scale Scores?

Scale scores provide a useful measurement tool for many assessment programs. They are used in numerous national testing programs, including the ACT and SAT examinations, which are typically part of the admissions process for colleges and universities. Scale scores are also routinely used in many other statewide testing programs, providing the basis for long-term, meaningful comparisons of student results across different test administrations.

Educators have always adjusted for differences in test length by changing from “number correct” scores to “percent correct” scores. The next step is to remove differences in item difficulty by moving to “scale scores.” To illustrate the value of this step, consider an examination with just two forms: Form A and Form B. If the items on Form A happen to be slightly more difficult than the items on Form B, one would expect a student to answer a higher percentage of items correctly if Form B were administered rather than Form A. However, a student should receive the same scale score for either form.

Scale scores are intended to make scores more meaningful by defining a scale of measurement that is not tied to a particular form of a test. However, to be meaningful, the scale must be tied to a benchmark that is meaningful to the user. The End-of-Course Examinations were constructed so that a specific score for Algebra I corresponds to the passing and not passing levels, and/or to the Advanced, Proficient, Basic, and Below Basic performance levels. In the future, these values may correspond to different raw scores, but they will have the same meaning in terms of student performance.

September 2012 Scale Scores

The attached Raw to Scale Score Conversion Tables list the total number of raw score points available for the *Fall Algebra I End-of-Course Examination* as well as the associated scale scores.

The tables below list the pass and not pass levels and associated scale score ranges for the *Fall Algebra I End-of-Course Examination*. **Again, the scale score information listed in these tables is specific to the September 2012 administration of the Algebra I End-of-Course Examination and does NOT apply to any other administration.**

2012 Fall Algebra I End-of-Course Examination Scale Score Ranges

Performance Levels	EOC Algebra I Scale Scores
Pass	159 & above
Not Pass	158 & below

The Report Interpretation Guide for the *Fall Algebra I End-of-Course Examination* contains more information on the development of the performance levels. For additional information about the results and information on student performance, please contact:

Office of Student Assessment
Arkansas Department of Education
Four Capitol Mall
Little Rock, AR 72201-1071
Telephone: 501-682-4558

ACTAAP

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2012 Fall Algebra I End-of-Course Examination Raw to Scale Score Conversion Tables

NOT PASS	
Raw Score	Scale Score
0	3
1	14
2	21
3	25
4	38
5	51
6	62
7	72
8	81
9	88
10	95
11	102
12	108
13	113
14	118
15	123
16	128
17	132
18	137
19	141
20	145
21	151
22	153
23	156

PASS	
Raw Score	Scale Score
24	159
25	163
26	167
27	170
28	173
29	175
30	178
31	181
32	184
33	187
34	189
35	192
36	195
37	197
38	200
39	203
40	205
41	207
42	209
43	211
44	214
45	216
46	218
47	220
48	222
49	224
50	226
51	229
52	231
53	233
54	235
55	237
56	239
57	241
58	244
59	246
60	248
61	250
62	252

PASS	
Raw Score	Scale Score
63	254
64	256
65	258
66	260
67	262
68	264
69	266
70	268
71	270
72	272
73	274
74	276
75	278
76	280
77	282
78	284
79	286
80	289
81	291
82	293
83	296
84	298
85	301
86	304
87	307
88	310
89	314
90	317
91	322
92	326
93	331
94	338
95	345
96	354
97	365
98	381
99	407
100	453