

Arkansas Proficiency Cut Scores
Concordance Tables Between
***Iowa Tests of Basic Skills*[®] and *Iowa Assessments*[™]**
For Grades 1 and 2

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(in collaboration with Iowa Testing Programs at the University of Iowa)

For the Arkansas Department of Education

September 15, 2014

SUMMARY

Purpose. In spring 2015, Arkansas school systems will be administering Form F of the *Iowa Assessments*[™]. Previously, Form B of the *Iowa Tests of Basic Skills*[®] (*ITBS*[®]) and *Iowa Tests of Educational Development*[®] (*ITED*[®]) had been administered to grades 1–8 and 9, respectively. In order to facilitate similar interpretations of student performance between Form B and Form F, the Arkansas Department of Education (DOE) requested that Riverside provide a concordance analysis for the proficient performance-level cut scores for grades 1 and 2 (that is, determine the equivalent proficient cut scores on Form F relative to Form B).

In 2014, Arkansas students in grades 1 and 2 were administered the Reading Comprehension and Vocabulary tests and Math Problem Solving and Data Interpretation tests, Levels 7 and 8 respectively, from the *ITBS* Form B Complete Battery. The proficiency cut scores for *ITBS* Form B, as adopted by the Arkansas DOE, are shown in Table 1.

Table 1. *ITBS* Form B Proficiency Cut Scores

2014 <i>Iowa Tests of Basic Skills</i> Proficiency Cut Scores – Form B			
Grade 1			
Math Total		Reading Total	
Level	SS	Level	SS
Basic	135	Basic	136
Proficient	146	Proficient	145
Advanced	159	Advanced	158
Grade 2			
Math Total		Reading Total	
Level	SS	Level	SS
Basic	145	Basic	152
Proficient	165	Proficient	163
Advanced	181	Advanced	179

Procedure. In the process of standardizing and equating *Iowa Assessments* Forms E and F to the forms in the previous edition, the *ITBS* and *ITED* Forms A, B, and C conversion tables of raw scores (RS) to Iowa Developmental standard scores (SS) were created. Then, using RS to SS conversions in terms of 2011 norms as well as the RS to SS conversions for 2005 norms, direct comparisons between performance on *ITBS* Forms A, B, and C and *Iowa Assessments* Form E or F expressed in terms of 2005 norms were derived. Riverside used this relationship to determine the concordance between Form B and Form F.

The first step was to locate the Form F SS in the 2005 RS-SS table that was closest to but not exceeding the Form B proficiency cut score expressed in SS units. The RS corresponding to the 2005 SS was obtained. Next, the RS was used to locate the Form F SS in the 2011 RS-SS table. The resulting SS is the Form F cut score, expressed in 2011 norms, that is equivalent to the Form B cut scores based on 2005 norms. The 2005-derived RS and SS values used to obtain the Form F cut scores are displayed in Table 2.

Table 2. Iowa Assessments Form F Cut Score Values Equivalent to ITBS Form B

Iowa Assessments Form F Proficiency Cut Score Equivalents					
Grade 1					
Mathematics			Reading		
2005 SS	2005 RS	2011 SS	2005 SS	2005 RS	2011 SS
134	20	131	136	10	135
145	25	143	145	16	144
159	32	158	157	23	154
Grade 2					
Mathematics			Reading		
2005 SS	2005 RS	2011 SS	2005 SS	2005 RS	2011 SS
144	18	143	152	20	149
164	28	162	162	28	161
181	35	176	177	33	175

The Concordance Tables. Tables 3 through 6 display SS units for grades 1 and 2 on *ITBS* Form B that are comparable to SS units on Form F for Mathematics and Reading. For each grade and subtest, two matched columns of SS cut scores are given. For example, Table 3 displays comparable scores for *ITBS* Form B and *Iowa Assessments* Form F grade 1 Mathematics. The two columns show the SS cut scores for *ITBS* Form B and the corresponding *Iowa Assessments* Form F SS, as derived by the linking procedure explained above. At grade 1, for instance, an *ITBS* Math Total SS of 146 is *statistically equivalent* to an *Iowa Assessments* Form F SS of 143. Without the linking procedure, one might erroneously conclude that there is a difference of 3 SS points in achievement between the two forms, when achievement has actually remained relatively stable, and the difference reflects a slight variation in test difficulty that is typically observed in any test equating procedure.

In these tables, the *ITBS* Mathematics Total scores were linked to the *Iowa Assessments* Form F Mathematics scores, which reflect the same content. For the *ITBS* Reading Total, while these scores are not available on paper reports, these scores are generated in the background to support other program operations; these scores were linked to the *Iowa Assessments* Form F Reading scores, which also reflect very similar content.

Table 3. Grade 1 Math: *ITBS* Form B to *Iowa Assessments* Form F Scale Score Concordance Table

	<i>ITBS</i>	<i>Iowa Assessments</i>
	Form B	Form F
	SS	SS
Basic	135	131
Proficient	146	143
Advanced	159	158

Table 4. Grade 2 Math: *ITBS* Form B to *Iowa Assessments* Form F Scale Score Concordance Table

	<i>ITBS</i>	<i>Iowa Assessments</i>
	Form B	Form F
	SS	SS
Basic	145	143
Proficient	165	162
Advanced	181	176

**Table 5. Grade 1 Reading: *ITBS* Form B to *Iowa Assessments* Form F
Scale Score Concordance Table**

	<i>ITBS</i> Form B SS	<i>Iowa</i> Assessments Form F SS
Basic	136	135
Proficient	145	144
Advanced	158	154

**Table 6. Grade 2 Reading: *ITBS* Form B to *Iowa Assessments* Form F
Scale Score Concordance Table**

	<i>ITBS</i> Form B SS	<i>Iowa</i> Assessments Form F SS
Basic	152	149
Proficient	163	161
Advanced	179	175