### TIMSS 2011 Item Parameters from Concurrent Calibration of Fourth Grade Mathematics

<table>
<thead>
<tr>
<th>Item Released in 2007:</th>
<th>Slope (a&lt;sub&gt;j&lt;/sub&gt;)</th>
<th>Location (b&lt;sub&gt;j&lt;/sub&gt;)</th>
<th>Guessing (c&lt;sub&gt;j&lt;/sub&gt;)</th>
<th>Step 1 (d&lt;sub&gt;j1&lt;/sub&gt;)</th>
<th>Step 2 (d&lt;sub&gt;j2&lt;/sub&gt;)</th>
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**Note:** TIMSS 2011 Item Parameters from Concurrent Calibration.
**TIMSS 2011 Item Parameters from Concurrent Calibration of Fourth Grade Mathematics**

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<th>Guessing (c)</th>
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<th>Step 2 (d2)</th>
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**Items Common in 2007 and 2011:**

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<th>Guessing (c)</th>
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### TIMSS 2011 Item Parameters from Concurrent Calibration of Fourth Grade Mathematics (Continued)

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<th>Location ($b_j$)</th>
<th>Guessing ($c_j$)</th>
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## TIMSS 2011 Item Parameters from Concurrent Calibration of Fourth Grade Mathematics (Continued)

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## TIMSS 2011 Item Parameters from Concurrent Calibration of Fourth Grade Science (Continued)

### Items Released in 2007:

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### TIMSS 2011 Item Parameters from Concurrent Calibration of Fourth Grade Science (Continued)

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### Items Common in 2007 and 2011:

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### TIMSS 2011 Item Parameters from Concurrent Calibration of Fourth Grade Science (Continued)

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## TIMSS 2011 Item Parameters from Concurrent Calibration of Fourth Grade Science (Continued)

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### TIMSS 2011 Item Parameters from Concurrent Calibration of Fourth Grade Science (Continued)

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| Items Introduced in 2011: |

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### TIMSS 2011 Item Parameters for Concurrent Calibration of Eighth Grade Mathematics (Continued)

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### TIMSS 2011 Item Parameters for Concurrent Calibration of Eighth Grade Science

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### TIMSS 2011 Item Parameters for Concurrent Calibration of Eighth Grade Science (Continued)

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**TIMSS & PIRLS Methods and Procedures—Scaling**

TIMSS & PIRLS International Study Center

Lynch School of Education, Boston College
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### TIMSS 2011 Item Parameters for Concurrent Calibration of Eighth Grade Science (Continued)

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