Appendix B.1: Distribution of Items Included in the Assessment by 2015 Content Domain, Cognitive Domain, and Item Format

| TIMSS Assessment Items | Multiple-Choice Items | Constructed Response Items | Total Items | Percentage of Score Points |
| :---: | :---: | :---: | :---: | :---: |
| Content Domain |  |  |  |  |
| Number | 46 (46) | 43 (49) | 89 (95) | 52\% |
| Geometric Shapes and Measures | 35 (35) | 21 (24) | 56 (59) | 32\% |
| Data Display | 8 (8) | 16 (20) | 24 (28) | 15\% |
| Total | 89 (89) | 80 (93) | 169 (182) | 100\% |
| Percentage of Score Points | 49\% | 51\% |  |  |
| Cognitive Domain |  |  |  |  |
| Knowing | 37 (37) | 27 (28) | 64 (65) | 36\% |
| Applying | 36 (36) | 36 (44) | 72 (80) | 44\% |
| Reasoning | 16 (16) | 17 (21) | 33 (37) | 20\% |
| Total | 89 (89) | 80 (93) | 169 (182) | 100\% |
| Percentage of Score Points | 49\% | 51\% |  |  |
| TIMSS Numeracy Assessment Items | Multiple-Choice Items | Constructed Response Items | Total Items | Percentage of Score Points |


| Content Domain |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Whole Numbers | $21(21)$ | $31(32)$ | $52(53)$ | $50 \%$ |
| Fractions and Decimals | $7(7)$ | $8(8)$ | $15(15)$ | $14 \%$ |
| Shapes and Measures | $18(18)$ | $17(20)$ | $35(38)$ | $36 \%$ |
| Total | $46(46)$ | $56(60)$ | $102(106)$ | $100 \%$ |
| Percentage of Score Points | $43 \%$ | $57 \%$ |  |  |


| Cognitive Domain |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Knowing | $30(30)$ | $25(25)$ | $55(55)$ | $52 \%$ |
| Applying | $11(11)$ | $24(25)$ | $35(36)$ | $34 \%$ |
| Reasoning | $5(5)$ | $7(10)$ | $12(15)$ | $14 \%$ |
| Total | $46(46)$ | $56(60)$ | $102(106)$ | $100 \%$ |
| Percentage of Score Points | $43 \%$ | $57 \%$ |  |  |

[^0]
[^0]:    Counts of TIMSS Numeracy achievement items do not include the two fourth grade TIMSS 2015 mathematics blocks (see Chapter 4 of the TIMSS 2015 Assessment Frameworks).
    Score points are shown in parentheses.
    Because of rounding some results may appear inconsistent.

