

Appendix B.1: Distribution of Items Included in the Assessment by **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%		

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Content Domain	l			
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	l			
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	Multipla-Chaica Itams	Constructed Response	Total Itoms	Percentage
TIMSS Numeracy Assessment Items	Multiple-Choice Items	Constructed Response Items	Total Items	Percentage of Score Points
Assessment Items	Multiple-Choice Items	•	Total Items	
Assessment Items Content Domain	Multiple-Choice Items	•	Total Items 52 (53)	
Assessment Items Content Domain Whole Numbers		ltems .		of Score Points
	21 (21)	1tems 31 (32)	52 (53)	of Score Points
Assessment Items Content Domain Whole Numbers Fractions and Decimals Shapes and Measures Total	21 (21) 7 (7)	31 (32) 8 (8)	52 (53) 15 (15)	of Score Points 50% 14%
Assessment Items Content Domain Whole Numbers Fractions and Decimals Shapes and Measures Total	21 (21) 7 (7) 18 (18)	31 (32) 8 (8) 17 (20)	52 (53) 15 (15) 35 (38)	50% 14% 36%
Content Domain Whole Numbers Fractions and Decimals Shapes and Measures Total Percentage of Score Points	21 (21) 7 (7) 18 (18) 46 (46)	31 (32) 8 (8) 17 (20) 56 (60)	52 (53) 15 (15) 35 (38)	50% 14% 36%
Assessment Items Content Domain Whole Numbers Fractions and Decimals	21 (21) 7 (7) 18 (18) 46 (46)	31 (32) 8 (8) 17 (20) 56 (60)	52 (53) 15 (15) 35 (38)	50% 14% 36%
Assessment Items Content Domain Whole Numbers Fractions and Decimals Shapes and Measures Total Percentage of Score Points Cognitive Domain	21 (21) 7 (7) 18 (18) 46 (46) 43%	31 (32) 8 (8) 17 (20) 56 (60) 57%	52 (53) 15 (15) 35 (38) 102 (106)	50% 14% 36% 100%
Assessment Items Content Domain Whole Numbers Fractions and Decimals Shapes and Measures Total Percentage of Score Points Cognitive Domain Knowing	21 (21) 7 (7) 18 (18) 46 (46) 43%	31 (32) 8 (8) 17 (20) 56 (60) 57%	52 (53) 15 (15) 35 (38) 102 (106)	50% 14% 36% 100%
Assessment Items Content Domain Whole Numbers Fractions and Decimals Shapes and Measures Total Percentage of Score Points Cognitive Domain Knowing Applying	21 (21) 7 (7) 18 (18) 46 (46) 43% 30 (30) 11 (11)	31 (32) 8 (8) 17 (20) 56 (60) 57% 25 (25) 24 (25)	52 (53) 15 (15) 35 (38) 102 (106) 55 (55) 35 (36)	50% 14% 36% 100%

 $Counts of TIMSS \ Numeracy \ achievement items \ do \ not include \ the \ two \ fourth \ grade \ TIMSS \ 2015 \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ blocks \ (see \ Chapter \ 4 \ of \ the \ TIMSS \ 2015) \ mathematics \ (see \ Chapter \ 4 \ of \ the \ 2015) \ mathematics \ (see \ Chapter \ 4 \ of \ the \ 2015) \ mathematics \ (see \ Chapter \ 4 \ of \ 4 \ o$ Assessment Frameworks).

Score points are shown in parentheses.

Because of rounding some results may appear inconsistent.

