

Appendix B

Characteristics of the Items in the TIMSS 2011 Mathematics Assessment

Appendix B.1: Distribution of Assessment Items 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	42 (42)	46 (50)	88 (92)	50%
Geometric Shapes and Measures	38 (38)	23 (27)	61 (65)	35%
Data Display	13 (13)	13 (15)	26 (28)	15%
Total	93 (93)	82 (92)	175 (185)	100%
Percentage of Score Points	50%	50%		
Cognitive Domain				
Knowing	43 (43)	27 (30)	70 (73)	39%
Applying	34 (34)	37 (41)	71 (75)	41%
Reasoning	16 (16)	18 (21)	34 (37)	20%
Total	93 (93)	82 (92)	175 (185)	100%
Percentage of Score Points	50%	50%		

Score points are shown in parentheses.
Because of rounding some results may appear inconsistent.

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2011

Appendix B.2: Distribution of Assessment Items 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	31 (31)	30 (36)	61 (67)	29%
Algebra	37 (37)	33 (39)	70 (76)	33%
Geometry	25 (25)	18 (19)	43 (44)	19%
Data and Chance	25 (25)	18 (20)	43 (45)	19%
Total	118 (118)	99 (114)	217 (232)	100%
Percentage of Score Points	51%	49%		
Cognitive Domain				
Knowing	53 (53)	27 (30)	80 (83)	36%
Applying	47 (47)	38 (44)	85 (91)	39%
Reasoning	18 (18)	34 (40)	52 (58)	25%
Total	118 (118)	99 (114)	217 (232)	100%
Percentage of Score Points	51%	49%		

Score points are shown in parentheses.
Because of rounding some results may appear inconsistent.

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