Appendix 10A: TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items

TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items—Grade 4 Mathematics

Country	Score Point Agreement			Diagnostic Code Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items	
		Minimum	Maximum		Minimum	Maximum
Albania	100	98	100	100	97	100
Armenia	100	100	100	100	99	100
Australia	99	95	100	99	94	100
Austria	98	95	100	98	95	100
Azerbaijan	100	98	100	100	98	100
Bahrain	92	78	100	91	75	99
Belgium (Flemish)	97	86	100	97	82	100
Bosnia and Herzegovina	99	91	100	98	91	100
Bulgaria	99	97	100	99	97	100
Canada	97	93	100	96	93	100
Chile	98	94	100	98	94	100
Chinese Taipei	97	89	100	97	89	100
Croatia	99	97	100	99	97	100
Cyprus	98	89	100	97	88	100
Czech Republic	98	94	100	97	92	100
Denmark	97	90	100	96	89	100
England	98	92	100	98	92	100
Finland	100	98	100	100	98	100
France	98	94	100	98	94	100
Georgia	96	89	100	96	88	100
Germany	98	93	100	97	93	100
Hong Kong SAR	100	100	100	100	100	100
Hungary	98	91	99	97	91	99
Iran, Islamic Rep. of	99	94	100	97	92	100
Ireland	100	97	100	99	97	100
Italy	99	94	100	98	94	100
Japan	99	87	100	98	87	100

TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items—Grade 4 Mathematics (continued)

Country	Score Point Agreement			Diagnostic Code Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items	
		Minimum	Maximum		Minimum	Maximum
Kazakhstan	92	81	99	89	75	97
Korea, Rep. of	99	96	100	99	96	100
Kosovo	96	70	100	94	70	100
Kuwait	100	98	100	99	96	100
Latvia	99	92	100	98	91	100
Lithuania	98	92	100	98	92	100
Malta	95	89	99	94	87	99
Montenegro	98	92	100	97	92	100
Morocco	95	72	100	94	72	100
Netherlands	96	89	100	95	89	100
New Zealand	99	92	100	98	90	100
North Macedonia	99	96	100	99	91	100
Northern Ireland	100	97	100	100	95	100
Norway (5)	98	92	100	97	92	100
Oman	98	92	100	96	88	100
Pakistan	100	100	100	100	100	100
Philippines	99	97	100	99	93	100
Poland	99	93	100	98	88	100
Portugal	98	95	100	97	94	99
Qatar	98	95	100	97	94	100
Russian Federation	98	91	100	97	91	100
Saudi Arabia	96	72	100	94	69	99
Serbia	98	95	100	98	93	100
Singapore	98	95	100	98	95	100
Slovak Republic	99	95	100	98	95	100
South Africa (5)	98	83	100	97	82	100
Spain	97	92	100	96	92	100
Sweden	98	91	100	98	91	100
Turkey (5)	99	96	100	99	96	100
United Arab Emirates	99	96	100	98	96	100
United States	98	96	100	98	96	100
International Average	**98**	**92**	**100**	**97**	**91**	**100**

TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items—Grade 4 Mathematics (continued)

Country	Score Point Agreement			Diagnostic Code Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items	
		Minimum	Maximum		Minimum	Maximum
Ontario, Canada	97	88	100	96	86	100
Quebec, Canada	96	89	100	95	87	100
Moscow City, Russian Fed.	99	95	100	98	95	100
Madrid, Spain	97	92	100	97	92	100
Abu Dhabi, UAE	99	94	100	99	94	100
Dubai, UAE	98	92	100	98	92	100

TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items—Grade 4 Science

Country	Score Point Agreement			Diagnostic Code Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items	
		Minimum	Maximum		Minimum	Maximum
Albania	100	99	100	99	98	100
Armenia	100	100	100	100	100	100
Australia	97	90	100	97	90	100
Austria	95	85	100	95	85	100
Azerbaijan	100	98	100	100	98	100
Bahrain	98	93	100	97	92	100
Belgium (Flemish)	93	74	99	92	74	99
Bosnia and Herzegovina	99	94	100	98	90	100
Bulgaria	98	94	100	97	92	100
Canada	92	80	100	92	80	100
Chile	95	90	100	94	90	100
Chinese Taipei	95	83	100	95	81	100
Croatia	94	87	100	94	87	100
Cyprus	93	85	100	92	85	100
Czech Republic	93	84	100	93	84	100
Denmark	93	84	100	93	84	100
England	94	90	100	93	90	100
Finland	97	91	100	96	91	100
France	95	90	99	95	90	99
Georgia	92	76	100	91	76	99
Germany	96	85	100	95	85	100
Hong Kong SAR	100	100	100	100	100	100
Hungary	92	76	99	91	71	99
Iran, Islamic Rep. of	96	84	100	94	75	100
Ireland	98	91	100	98	91	100
Italy	97	94	100	97	93	100
Japan	95	85	100	94	85	100
Kazakhstan	89	79	97	86	75	95
Korea, Rep. of	98	93	100	98	93	100
Kosovo	89	75	97	85	60	96
Kuwait	100	99	100	99	97	100

TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items—Grade 4 Science (continued)

Country	Score Point Agreement			Diagnostic Code Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items	
		Minimum	Maximum		Minimum	Maximum
Latvia	94	81	100	93	79	100
Lithuania	95	87	99	94	87	99
Malta	92	85	99	91	85	99
Montenegro	98	90	100	98	90	100
Morocco	91	74	99	88	65	99
Netherlands	92	81	100	91	81	100
New Zealand	96	83	100	95	82	100
North Macedonia	98	94	100	98	90	100
Northern Ireland	96	90	100	95	90	100
Norway (5)	93	84	100	92	84	100
Oman	97	93	100	95	87	99
Pakistan	100	100	100	100	100	100
Philippines	99	96	100	98	93	100
Poland	94	72	100	93	71	100
Portugal	96	90	100	95	89	100
Qatar	96	91	100	95	91	100
Russian Federation	94	88	100	94	88	100
Saudi Arabia	94	73	100	92	55	100
Serbia	97	92	100	96	91	100
Singapore	96	86	100	96	86	100
Slovak Republic	97	93	100	97	93	100
South Africa (5)	98	91	100	97	90	100
Spain	93	86	100	92	85	100
Sweden	92	80	100	92	80	100
Turkey (5)	96	90	100	96	85	100
United Arab Emirates	94	90	99	94	90	99
United States	96	87	100	95	87	100
International Average	**95**	**87**	**100**	**95**	**86**	**100**

TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items—Grade 4 Science (continued)

Country	Score Point Agreement			Diagnostic Code Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items	
		Minimum	Maximum		Minimum	Maximum
Ontario, Canada	92	77	100	91	77	100
Quebec, Canada	91	74	100	91	74	100
Moscow City, Russian Fed.	96	86	100	95	86	100
Madrid, Spain	92	82	100	92	81	100
Abu Dhabi, UAE	95	87	100	94	86	100
Dubai, UAE	92	81	100	92	81	100

TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items—Grade 8 Mathematics

Country	Score Point Agreement			Diagnostic Code Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items	
		Minimum	Maximum		Minimum	Maximum
Australia	98	85	100	97	85	100
Bahrain	90	61	100	89	61	100
Chile	96	90	100	95	90	100
Chinese Taipei	97	87	100	97	87	100
Cyprus	98	89	100	97	88	100
Egypt	99	95	100	98	92	100
England	97	93	100	97	93	100
Finland	99	97	100	99	97	100
France	97	88	100	97	88	100
Georgia	96	89	100	95	87	100
Hong Kong SAR	100	100	100	100	100	100
Hungary	97	91	100	96	90	100
Iran, Islamic Rep. of	99	89	100	97	89	100
Ireland	99	91	100	98	86	100
Israel	98	90	100	97	90	100
Italy	98	91	100	97	91	100
Japan	99	90	100	98	90	100
Jordan	99	96	100	98	93	100
Kazakhstan	93	78	100	90	69	99
Korea, Rep. of	99	96	100	99	95	100
Kuwait	100	97	100	99	96	100
Lebanon	100	100	100	100	100	100
Lithuania	97	89	100	96	89	100
Malaysia	99	97	100	99	97	100
Morocco	96	68	100	90	30	100
New Zealand	98	87	100	97	85	100
Norway (9)	97	92	100	97	92	100
Oman	99	95	100	98	89	100
Portugal	97	89	100	97	89	100
Qatar	97	93	100	96	93	100
Romania	99	95	100	97	92	100

TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items—Grade 8 Mathematics (continued)

Country	Score Point Agreement			Diagnostic Code Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items	
		Minimum	Maximum		Minimum	Maximum
Russian Federation	98	90	100	97	90	100
Saudi Arabia	98	76	100	95	29	100
Singapore	99	95	100	98	93	100
South Africa (9)	100	98	100	99	95	100
Sweden	97	85	100	97	85	100
Turkey	99	94	100	98	93	100
United Arab Emirates	97	93	100	97	93	100
United States	98	91	100	98	91	100
International Average	**98**	**90**	**100**	**97**	**87**	**100**
Ontario, Canada	96	83	100	95	83	100
Quebec, Canada	96	84	100	95	80	100
Moscow City, Russian Fed.	98	92	100	98	92	100
Gauteng, RSA (9)	100	95	100	99	91	100
Western Cape, RSA (9)	100	93	100	99	91	100
Abu Dhabi, UAE	97	91	100	97	91	100
Dubai, UAE	97	87	100	96	87	100

TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items—Grade 8 Science

Country	Score Point Agreement			Diagnostic Code Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items	
		Minimum	Maximum		Minimum	Maximum
Australia	94	76	100	92	76	100
Bahrain	98	89	100	97	83	100
Chile	95	90	100	94	90	100
Chinese Taipei	95	81	100	94	81	100
Cyprus	94	86	100	93	86	100
Egypt	97	89	100	96	86	100
England	95	90	100	94	90	100
Finland	97	91	100	96	91	100
France	96	86	100	96	86	100
Georgia	93	73	100	92	73	100
Hong Kong SAR	100	100	100	100	100	100
Hungary	91	79	99	90	78	99
Iran, Islamic Rep. of	96	85	100	94	83	100
Ireland	96	83	100	95	82	100
Israel	93	81	100	92	81	100
Italy	97	92	100	97	92	100
Japan	95	86	100	95	86	100
Jordan	99	96	100	98	85	100
Kazakhstan	88	72	99	85	67	98
Korea, Rep. of	97	90	100	96	90	100
Kuwait	99	98	100	99	97	100
Lebanon	100	100	100	100	100	100
Lithuania	94	80	100	93	80	100
Malaysia	95	90	100	95	90	100
Morocco	91	70	100	87	38	99
New Zealand	95	78	99	94	77	99
Norway (9)	94	85	100	94	85	100
Oman	97	89	100	96	89	100
Portugal	95	87	100	95	87	100
Qatar	95	90	100	94	90	100
Romania	96	81	100	95	80	100

TIMSS 2019 Within-Country Scoring Reliability for Human Scored Items—Grade 8 Science (continued)

Country	Score Point Agreement			Diagnostic Code Agreement		
	Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items		Average of Exact Percent Agreement Across Items	Range of Exact Percent Agreement Across Items	
		Minimum	Maximum		Minimum	Maximum
Russian Federation	94	87	100	94	87	100
Saudi Arabia	92	75	100	90	45	100
Singapore	96	87	100	95	87	100
South Africa (9)	99	96	100	99	96	100
Sweden	93	80	100	93	80	100
Turkey	96	88	100	96	88	100
United Arab Emirates	94	90	100	94	90	100
United States	95	90	100	95	89	100
International Average	**95**	**86**	**100**	**94**	**84**	**100**
Ontario, Canada	93	82	100	92	82	100
Quebec, Canada	92	78	100	90	78	100
Moscow City, Russian Fed.	97	87	100	96	87	100
Gauteng, RSA (9)	98	84	100	98	84	100
Western Cape, RSA (9)	99	94	100	99	94	100
Abu Dhabi, UAE	95	83	100	94	83	100
Dubai, UAE	93	84	100	93	83	100