

Exhibit 11.2: Example International Item Statistics for a TIMSS Advanced 2015 Constructed Response Item

Trends in International Mathematics and Science Study - TIMSS Advanced 2015 Assessment Results - Adv. Mathematics
International Item Review Statistics (Unweighted)

Mathematics: Algebra / Knowing (M2_02 - M033225) Type: CR 2 Points
Label: Polynomials satisfying conditions (DERIVED)

Country	Cases	DIFF	DISC	Percentages					Point Biserials					Reliability		Flags	
				P_0	P_1	P_2	P_OM	P_NR	PB_0	PB_1	PB_2	PB_OM	PB_NR	RDIFF	N		Score	Code
France	1328	52.0	0.46	37.8	15.1	44.4	2.7	0.0	-0.40	-0.04	0.44	-0.06	-0.64	.	.	.	.
Italy	1103	39.8	0.50	44.2	18.9	30.3	6.5	0.0	-0.34	-0.12	0.52	-0.10	-0.52	.	.	.	.
Lebanon	385	69.7	0.40	21.6	12.7	63.4	2.3	0.0	-0.29	-0.10	0.39	-0.21	-0.64	.	.	.	.
Norway	853	33.2	0.32	47.1	32.1	17.1	3.6	0.0	-0.23	0.01	0.32	-0.05	0.08	.	.	.	H
Portugal	1365	52.1	0.47	35.8	20.1	42.1	2.1	0.0	-0.37	-0.11	0.48	-0.06	-0.63	.	.	.	.
Russian Federation	2522	54.5	0.56	38.5	7.7	50.7	3.1	0.0	-0.47	-0.13	0.57	-0.11	-0.33	.	.	.	H
Russian Federation 6hr+	1151	65.6	0.53	29.3	6.2	62.6	2.0	0.0	-0.46	-0.12	0.53	-0.16	-0.29	.	.	.	H
Slovenia	981	74.5	0.37	19.8	11.1	68.9	0.2	0.0	-0.33	-0.10	0.36	-0.03	-1.42	.	.	.	E
Sweden	1321	41.0	0.51	48.2	17.9	32.0	1.9	0.1	-0.44	-0.01	0.49	-0.03	-0.45	.	.	.	H
United States	977	60.8	0.49	31.3	14.7	53.5	0.5	0.3	-0.41	-0.14	0.50	-0.06	-0.74	.	.	.	E
International Avg (9)	10835	53.1	0.45	36.0	16.7	44.7	2.5	0.0	-0.37	-0.08	0.45	-0.08	-0.59	.	.	.	.

Keys: DIFF= Percent correct score; DISC= Item discrimination; P_0...P_2= Percentage obtaining score level; P_OM, P_NR= Percentage Omitted, Not Reached; PB_0...PB_2= Point Biserial for score level; PB_OM, PB_NR= Point Biserial for Omitted, Not Reached; RDIFF= Rasch difficulty;

Reliability: N= Responses double scored; Score= Percentage agreement on score; Code= Percentage agreement on code.

Flags: A= Point Biserials not ordered; C= Difficulty less than average; D= Negative/Low discrimination; E= Easier than average; F= Score obtained by less than 10%; H= Harder than average; R= Scoring reliability less than 88%; V= Difficulty greater than 95%.