

**Exhibit 9.4: Percentages of Students Taught the TIMSS Mathematics Topics\***

Reported by Teachers

Country	All Mathematics (20 topics)	Number (5 topics)	Algebra (6 topics)	Geometry (6 topics)	Data and Chance (3 topics)
Australia	76 (0.9)	90 (0.9)	65 (1.5)	77 (1.4)	71 (2.2)
Bahrain	88 (0.5)	95 (0.5)	83 (0.7)	90 (0.8)	83 (1.6)
Botswana (9)	67 (1.5)	72 (2.4)	56 (2.4)	76 (1.8)	62 (3.2)
Canada	76 (0.8)	89 (0.8)	61 (1.2)	85 (1.3)	69 (1.9)
Chile	80 (1.5)	90 (1.3)	65 (2.4)	87 (1.6)	78 (3.4)
Chinese Taipei	72 (0.6)	95 (0.7)	88 (0.7)	72 (1.5)	2 (0.6)
Egypt	82 (0.7)	96 (0.6)	71 (1.3)	85 (0.9)	78 (2.0)
England	77 (1.3)	82 (1.0)	72 (1.9)	77 (2.2)	76 (2.2)
Georgia	71 (1.0)	96 (0.6)	72 (1.6)	61 (1.5)	45 (2.9)
Hong Kong SAR	73 (1.0)	93 (1.3)	72 (1.5)	79 (1.3)	33 (2.7)
Hungary	85 (0.7)	98 (0.4)	78 (1.0)	90 (0.9)	67 (2.7)
Iran, Islamic Rep. of	71 (0.9)	90 (1.0)	45 (1.3)	84 (1.1)	63 (2.8)
Ireland	73 (1.0)	92 (0.8)	72 (1.5)	58 (1.8)	75 (2.3)
Israel	82 (0.8)	90 (0.7)	90 (0.8)	78 (1.1)	59 (2.4)
Italy	75 (0.8)	99 (0.3)	49 (1.4)	92 (0.9)	56 (2.9)
Japan	88 (0.6)	81 (1.2)	91 (0.8)	95 (0.6)	79 (2.3)
Jordan	86 (0.8)	99 (0.6)	94 (0.8)	80 (1.5)	64 (2.6)
Kazakhstan	81 (0.9)	99 (0.2)	84 (1.4)	71 (1.3)	63 (2.7)
Korea, Rep. of	80 (0.6)	81 (0.7)	94 (0.6)	90 (0.9)	34 (3.1)
Kuwait	75 (1.1)	88 (0.9)	60 (1.6)	82 (1.5)	69 (2.5)
Lebanon	60 (1.3)	88 (1.0)	47 (1.7)	62 (1.7)	34 (3.3)
Lithuania	61 (1.0)	89 (0.8)	50 (1.5)	56 (1.5)	49 (2.5)
Malaysia	71 (1.3)	96 (0.7)	54 (2.1)	86 (1.3)	36 (3.4)
Malta	74 (0.0)	89 (0.0)	77 (0.1)	63 (0.1)	63 (0.1)
Morocco	60 (0.8)	96 (0.6)	50 (1.3)	54 (1.2)	29 (2.1)
New Zealand	75 (1.1)	87 (1.0)	69 (1.5)	69 (1.8)	76 (2.2)
Norway (9)	65 (0.8)	87 (1.0)	51 (1.7)	58 (1.6)	65 (2.5)
Oman	77 (0.8)	90 (0.7)	62 (1.1)	85 (1.1)	72 (1.9)
Qatar	80 (0.7)	89 (0.7)	77 (1.3)	84 (1.0)	66 (2.5)
Russian Federation	--	--	--	--	--
Saudi Arabia	89 (0.8)	99 (0.5)	81 (1.5)	91 (1.0)	87 (2.1)
Singapore	88 (0.4)	98 (0.4)	94 (0.5)	80 (0.6)	77 (1.4)
Slovenia	60 (0.7)	97 (0.6)	49 (1.1)	63 (1.1)	14 (1.2)
South Africa (9)	80 (1.2)	97 (0.8)	80 (1.6)	81 (1.5)	49 (3.6)
Sweden	61 (1.3)	78 (1.4)	55 (2.7)	59 (1.7)	49 (2.6)
Thailand	70 (1.1)	99 (0.5)	54 (1.9)	80 (1.8)	31 (2.6)
Turkey	82 (0.7)	100 (0.2)	62 (1.7)	79 (1.0)	99 (0.6)
United Arab Emirates	84 (0.6)	92 (0.6)	79 (0.9)	84 (0.7)	78 (1.4)
United States	90 (0.7)	98 (0.4)	92 (0.8)	r 84 (1.3)	r 83 (2.0)
International Avg.	76 (0.1)	92 (0.1)	70 (0.2)	77 (0.2)	60 (0.4)

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015

\* Percentage mostly taught before or in the assessment year averaged across topics.  
 ( ) Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.  
 A dash (-) indicates comparable data not available.  
 An "r" indicates data are available for at least 70% but less than 85% of the students. An "x" indicates data are available for less than 50% of students.

**Exhibit 9.4: Percentages of Students Taught the TIMSS Mathematics Topics\*  
(Continued)**

Country	All Mathematics (20 topics)	Number (5 topics)	Algebra (6 topics)	Geometry (6 topics)	Data and Chance (3 topics)
<b>Benchmarking Participants</b>					
Buenos Aires, Argentina	x x	x x	x x	x x	x x
Ontario, Canada	r 80 (1.1)	r 89 (1.2)	r 64 (1.5)	r 86 (1.8)	r 85 (1.9)
Quebec, Canada	72 (1.2)	89 (1.1)	57 (1.7)	87 (1.6)	45 (3.7)
Norway (8)	45 (1.1)	79 (1.5)	20 (1.7)	45 (2.0)	40 (2.8)
Abu Dhabi, UAE	83 (1.3)	91 (1.4)	79 (1.8)	r 85 (1.5)	73 (2.9)
Dubai, UAE	84 (0.7)	92 (0.6)	79 (1.0)	83 (0.9)	81 (2.1)
Florida, US	r 91 (1.5)	r 100 (0.3)	r 97 (1.0)	r 83 (3.9)	r 84 (4.3)

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015

**TIMSS 2015 Mathematics Topics**

**A. Number**

- 1) Computing with whole numbers
- 2) Comparing and ordering rational numbers
- 3) Computing with rational numbers
- 4) Concepts of irrational numbers
- 5) Problem solving involving percents or proportions

**B. Algebra**

- 1) Simplifying and evaluating algebraic expressions
- 2) Simple linear equations and inequalities
- 3) Simultaneous equations
- 4) Numeric, algebraic, and geometric patterns or sequences
- 5) Representation of functions as ordered pairs, tables, graphs, words, or equations
- 6) Properties of functions

**C. Geometry**

- 1) Geometric properties of angles and geometric shapes
- 2) Congruent figures and similar triangles
- 3) Relationship between three-dimensional shapes and their two-dimensional representations
- 4) Using appropriate measurement formulas for perimeters, circumferences, areas, surface areas, and volumes
- 5) Points on the Cartesian plane
- 6) Translation, reflection, and rotation

**D. Data and Chance**

- 1) Characteristics of data sets
- 2) Interpreting data sets
- 3) Judging, predicting, and determining the chances of possible outcomes