

**Exhibit 12.6: Percentages of Students Taught the TIMSS Mathematics Topics**

Students' Results based on Teachers' Reports

**About the Scale**

Exhibit 12.7 reports the percentage of students whose teachers responded “mostly taught before this year” or “mostly taught this year,” averaged across topics.

**Choose the response that best describes when students in this class have been taught each topic.**

	Mostly taught before this year	Mostly taught this year	Not yet taught or just introduced
	↓	↓	↓
<b>A. Number</b>			
1) Computing with negative numbers -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Concepts of fractions and decimals -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) Solving problems involving proportions and percents ---	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>B. Algebra</b>			
1) Simplifying and evaluating algebraic expressions -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Simple linear equations -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) Simple linear inequalities -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Simultaneous (two variables) equations -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) Representation of linear and quadratic functions in tables, graphs, words, or equations -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) Properties of functions (slopes, intercepts, etc.) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7) Numeric, algebraic, and geometric patterns or sequences (extension, missing terms, generalization of patterns) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C. Geometry</b>			
1) Geometric properties of angles, pairs of lines, and geometric shapes (triangles, quadrilaterals, and other common polygons) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Solving problems involving perimeters, circumferences, and areas -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) Solving problems involving the Pythagorean Theorem --	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Translation, reflection, and rotation -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) Congruent figures and similar triangles -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) Solving problems with three-dimensional shapes -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>D. Data and Probability</b>			
1) Reading and interpreting data from one or more sources to solve problems (interpolating, extrapolating, drawing conclusions) -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Identifying appropriate procedures for collecting data --	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) Organizing and representing data to help answer questions -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Calculating and interpreting statistics summarizing data distributions -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) Theoretical and empirical probability of simple events --	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) Theoretical and empirical probability of compound events -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Exhibit 12.7: Percentages of Students Taught the TIMSS Mathematics Topics**

Students' Results based on Teachers' Reports

The exhibit reports the percentage of students whose teachers responded "mostly taught before this year" or "mostly taught this year," averaged across topics.

Country	All Mathematics (22 Topics)	Number (3 Topics)	Algebra (7 Topics)	Geometry (6 Topics)	Data and Probability (6 Topics)
Australia	72 (1.2)	97 (0.7)	60 (1.5)	72 (1.3)	72 (2.1)
Bahrain	88 (0.4)	100 (0.0)	80 (0.8)	95 (0.3)	86 (0.8)
Chile	71 (1.4)	98 (0.7)	69 (1.7)	76 (2.3)	53 (2.7)
Chinese Taipei	62 (0.7)	99 (0.2)	85 (0.9)	72 (1.2)	7 (1.3)
Cyprus	s 62 (0.9)	s 97 (0.8)	s 67 (1.0)	s 60 (0.8)	s 40 (2.2)
Egypt	80 (0.8)	97 (1.0)	63 (1.4)	90 (0.9)	82 (1.4)
England	s 76 (1.8)	s 97 (1.1)	s 70 (2.3)	s 75 (2.7)	s 72 (3.0)
Finland	49 (0.9)	94 (0.9)	46 (1.1)	65 (1.5)	13 (2.0)
France	r 57 (0.8)	r 98 (0.7)	r 22 (1.0)	r 76 (1.4)	r 57 (2.0)
Georgia	65 (1.0)	100 (0.0)	66 (1.2)	66 (1.3)	47 (2.4)
Hong Kong SAR	70 (0.9)	100 (0.3)	65 (1.3)	82 (1.1)	49 (2.0)
Hungary	83 (0.9)	100 (0.0)	79 (0.9)	96 (0.8)	66 (2.4)
Iran, Islamic Rep. of	66 (1.0)	98 (0.6)	38 (1.3)	84 (1.2)	62 (2.5)
Ireland	68 (1.1)	99 (0.3)	73 (1.3)	49 (2.3)	66 (2.2)
Israel	80 (0.8)	98 (0.4)	88 (0.8)	76 (1.1)	65 (2.2)
Italy	65 (1.0)	99 (0.4)	34 (1.4)	89 (1.1)	60 (2.4)
Japan	79 (0.8)	100 (0.3)	80 (1.1)	73 (0.9)	72 (2.2)
Jordan	82 (1.0)	100 (0.4)	83 (1.2)	81 (1.5)	75 (2.1)
Kazakhstan	77 (1.1)	100 (0.0)	91 (1.1)	71 (1.6)	56 (2.2)
Korea, Rep. of	78 (0.6)	100 (0.2)	87 (0.8)	71 (0.9)	63 (1.7)
Kuwait	82 (0.7)	100 (0.0)	60 (1.4)	94 (0.8)	86 (1.2)
Lebanon	56 (1.1)	92 (1.0)	50 (1.4)	64 (1.3)	39 (2.8)
Lithuania	58 (0.8)	100 (0.3)	52 (1.3)	62 (1.2)	41 (2.1)
Malaysia	95 (0.7)	100 (0.0)	97 (0.7)	97 (0.8)	89 (1.9)
Morocco	56 (0.9)	97 (0.7)	50 (1.2)	57 (1.1)	41 (1.9)
New Zealand	60 (1.4)	94 (1.1)	52 (2.1)	52 (2.0)	59 (2.8)
Norway (9)	s 54 (1.3)	s 92 (1.5)	s 43 (2.2)	s 54 (1.7)	s 49 (2.8)
Oman	75 (0.7)	100 (0.3)	63 (1.0)	77 (1.1)	76 (1.4)
Portugal	70 (0.9)	100 (0.3)	60 (1.6)	90 (0.9)	46 (2.2)
Qatar	73 (1.4)	100 (0.1)	69 (1.8)	74 (2.2)	65 (2.6)
Romania	86 (0.9)	100 (0.0)	82 (1.1)	90 (0.8)	78 (2.1)
Russian Federation	65 (1.0)	100 (0.3)	78 (1.1)	71 (0.9)	28 (2.6)
Saudi Arabia	89 (0.7)	99 (0.7)	79 (1.4)	96 (0.8)	88 (1.3)
Singapore	85 (0.5)	99 (0.3)	93 (0.8)	85 (0.6)	70 (1.3)
South Africa (9)	76 (1.2)	97 (0.6)	78 (1.1)	86 (1.2)	54 (3.0)
Sweden	53 (1.2)	88 (1.5)	51 (1.8)	53 (1.4)	36 (2.6)
Turkey	81 (0.9)	100 (0.0)	79 (1.5)	63 (1.9)	91 (1.0)
United Arab Emirates	r 82 (0.5)	r 99 (0.2)	r 80 (0.7)	r 87 (0.4)	r 72 (1.1)
United States	83 (0.9)	100 (0.1)	87 (0.9)	84 (1.7)	68 (1.9)
<b>International Average</b>	<b>72 (0.2)</b>	<b>98 (0.1)</b>	<b>68 (0.2)</b>	<b>76 (0.2)</b>	<b>60 (0.3)</b>
<b>Benchmarking Participants</b>					
Ontario, Canada	r 76 (1.1)	r 92 (1.4)	r 62 (2.0)	r 86 (1.5)	r 75 (2.3)
Quebec, Canada	61 (1.2)	100 (0.3)	44 (1.5)	72 (1.3)	52 (3.4)
Moscow City, Russian Fed.	67 (0.9)	100 (0.0)	76 (1.1)	65 (1.1)	41 (2.6)
Gauteng, RSA (9)	79 (1.5)	98 (0.7)	79 (1.6)	88 (1.5)	59 (3.7)
Western Cape, RSA (9)	74 (1.5)	99 (0.6)	78 (1.5)	80 (1.6)	51 (3.8)
Abu Dhabi, UAE	r 82 (0.8)	r 99 (0.4)	r 81 (0.9)	r 89 (0.7)	r 66 (1.9)
Dubai, UAE	80 (0.8)	99 (0.1)	76 (1.5)	82 (0.7)	r 73 (1.4)

( ) Standard errors appear in parentheses. Because of rounding some results may appear inconsistent. An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.