Mathematics Topics Intended at Each Grade by a Majority of Top Achieving Countries.

Topic	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Whole Number: Meaning	j	j	j	f	f			
Whole Number: Operations	j	j	j	j	f			
Measurement Units	**d**	j	j	j	j	j	f	
Common Fractions			**d**	j	j	f		
Equations & Formulas			**d**	f	f	f	j	j
Data Representation & Analysis			**d**	**d**	f	f		**d**
2-D Geometry: Basics			**d**	f	f	f	j	j
2-D Geometry: Polygons & Circles				f	f	f	j	j
Measurement: Perimeter, Area & Volume				f	f	f	f	**d**
Rounding & Significant Figures				f	f			
Estimating Computations				f	f	f		
Whole Numbers: Properties of Operations				**d**	f			
Estimating Quantity & Size				**d**	**d**			
Decimal Fractions				f	j	f		
Relation of Common & Decimal Fractions				f	j	f		
Properties of Common & Decimal Fractions					f	f		
Percentages					f	f		
Proportionality Concepts					f	f	f	**d**
Proportionality Problems					f	f	j	j
2-D Geometry: Coordinate Geometry					**d**	**d**	f	f
Geometry: Transformations						f	f	f
Negative Numbers, Integers, & Their Properties						**d**	f	
Number Theory							f	**d**
Exponents, Roots & Radicals							f	f
Exponents & Orders of Magnitude							**d**	**d**
Measurement: Estimation & Errors							**d**	
Constructions using Straightedge & Compass							j	**d**
3-D Geometry							f	j
Geometry: Congruence & Similarity								j
Rational Numbers & Their Properties								**d**
Patterns, Relations & Functions								**d**
Proportionality: Slope & Trigonometry								**d**
Number of additional topics intended, on average, by top achieving countries to complete their curriculum at each grade level.	2	6	5	1	1	3	6	3

Intended by 4 out of the 6 top achieving countries **d**

Intended by *all but one* of the top achieving countries (5 out of 6) f

Intended by *all* of the top achieving countries j