

Exhibit 2.8: Descriptions of the TIMSS 2015 International Benchmarks of Mathematics Achievement

Students have some knowledge of whole numbers and basic graphs.

625	Advanced International Benchmark
	Students can apply and reason in a variety of problem situations, solve linear equations, and make generalizations. They can solve a variety of fraction, proportion, and percent problems and justify their conclusions. Students can use their knowledge of geometric figures to solve a wide range of problems about area. They demonstrate understanding of the meaning of averages and can solve problems involving expected values.
550	High International Benchmark
	Students can apply their understanding and knowledge in a variety of relatively complex situations. They can use information to solve problems involving different types of numbers and operations. They can relate fractions, decimals, and percentages to each other. Students at this level show basic procedural knowledge related to algebraic expressions. They can solve a variety of problems with angles including those involving triangles, parallel lines, rectangles, and similar figures. Students can interpret data in a variety of graphs and solve simple problems involving outcomes and probabilities.
475	Intermediate International Benchmark
	<i>Students can apply basic mathematical knowledge in a variety of situations.</i> They can solve problems involving negative numbers, decimals, percentages, and proportions. Students have some knowledge of linear expressions and two- and three-dimensional shapes. They can read and interpret data in graphs and tables. They have some basic knowledge of chance.
400	Low International Benchmark

