Appendix 14C: TIMSS 2015 Eighth Grade Mathematics Item Descriptions Developed During the TIMSS 2015 Benchmarking

Items at Low International Benchmark (400)
[illegible]
M04_01

M01_11	Identifies the number of remaining unit cubes
M02_07	Draws the reflection of a shape over a diagonal line on a grid
M03_11	Identifies a net of a rectangular solid
M03_12	Solves a problem involving angles of a triangle and parallel lines
M05_13	Uses the angle properties of triangles and rectangles to find a missing angle
M06_09	Uses the Pythagorean theorem to solve a word problem
M06_10	Solves a problem involving angles of a triangle
M07_09	Draws a symmetrical shape given half of it and its line of symmetry
M08_10	Finds the coordinates of a midpoint given two points in the Cartesian plane
M09_10	Identifies the value of an angle involving properties of corresponding and supplementary angles
M09_11	Draws an angle of a given measure on a square grid
M11_10	Solves a problem involving similar triangles
M13_11	Solves a problem involving angles of a triangle
M14_08A	Solves a word problem involving the length around a hexagonal prism
M01_14	Explains why a conclusion drawn from a given bar graph is incorrect
M02_13	Identifies the probability of an event
M05_16	Interpolates from a line graph to provide an estimated value
M06_12B	Compares the chances of two outcomes
M07_02	

M13_02B

M10_08	Constructs a linear equation for the perimeter of a rectangle and finds the area (2 of 2 points)
M11_08	Solves a pair of simultaneous linear equations
M13_05	Identifies an algebraic expression that represents the area of a given rectangle
M13_07B	Gives a rule for the nth term of a geometric pattern
M13_08	Identifies the graph of a linear equation
M14_06	Identifies the slope of a line given its equation
[illegible]	
M01_12	Uses the Pythagorean theorem in finding the area of a triangle [illegible]
M02_09	Identifies two different arrangements of trapezoids with the same perimeter
M04_10	Finds the coordinates of a vertex of a rectangle given the other three vertices [illegible]
M05_14	Uses properties of similar triangles to identify equal angles [illegible]
M06_11	Identifies the [illegible]

M02_12	Estimates probability given an observed sample
M03_13	Explains why a data representation could be misleading
M03_14	Interprets data in a pie chart to solve a word problem
M03_15	Uses understanding of mean and range to solve a problem

M11_11	Solves a multi-step word problem involving ratios between volumes
M13_09	Identifies the image of a shape after rotation and reflection
M14_09	Determines the number of exposed faces for unit-cubes that make up a larger cube (2 of 2 points)
M14_10	Solves a word problem involving the Pythagorean theorem
[illegible]	
M04_13	Solves a multi-step problem involving probability
M08_13	