

Houghton Mifflin Harcourt
Florida's B.E.S.T. Into Math, Grade 8 ©2023

correlated to the

Access Points to Florida's B.E.S.T. Standards: Mathematics (2021)
Grade 8

Standard	Descriptor	Citations
Strand: NUMBER SENSE AND OPERATIONS		
Standard 1: Solve problems involving rational numbers, including numbers in scientific notation, and extend the understanding of rational numbers to irrational numbers.		
MA.8.NSO.1.AP.1	Locate approximations of irrational numbers on a number line.	SE/TE: 339, 342–343, 346
MA.8.NSO.1.AP.2	Use appropriate tools to plot, order, and compare simple square roots and cube roots for quantities less than 100 .	SE/TE: 339, 342–343, 346
MA.8.NSO.1.AP.3	Use the properties of integer exponents and product/quotient of powers with like bases to produce equivalent expressions.	SE/TE: 395, 397–404, 410 TE only: 411B
MA.8.NSO.1.AP.4	Multiply a single-digit number by the power of 10 using a calculator .	SE/TE: 427, 429-434 TE only: 429C, 429D
MA.8.NSO.1.AP.5	Perform operations with numbers expressed in scientific notation using a calculator .	SE/TE: 443-449 TE only: 443C, 443D
MA.8.NSO.1.AP.6	Given a real-world problem , perform operations with numbers expressed in scientific notation using a calculator and interpret the answer in context.	SE/TE: 443-449 TE only: 443C, 443D
MA.8.NSO.1.AP.7	Use tools to solve multi-step mathematical problems, with four or fewer steps , involving the order of operations with rational numbers including exponents and perfect squares and/or square roots.	SE/TE: 405-409, TE only: 405C, 405D

Standard	Descriptor	Citations
Strand: ALGEBRAIC REASONING		
Standard 1: Generate equivalent algebraic expressions.		
MA.8.AR.1.AP.1	Use the properties of integer exponents and product/quotient of powers with like bases to produce equivalent algebraic expressions limited to positive exponents and monomial bases .	SE/TE: 411–416, 424, 426
MA.8.AR.1.AP.2	Use the distributive property to multiply a monomial by a binomial linear expression.	SE/TE: 418–423, 426 TE only: 417B
MA.8.AR.1.AP.3	Rewrite the sum of two linear algebraic expressions having a common whole number monomial factor as the common factor multiplied by the sum of two linear algebraic expressions.	SE/TE: Pg. 419, 421–424, 442
Standard 2: Solve multi-step one-variable equations and inequalities		
MA.8.AR.2.AP.1a	Set up multi-step equations in one variable, with integers coefficients. Include equations with variables on both sides .	SE/TE: 92–93, 95, 98–102, 103–105, 107, 122, 164, 180, 208, 216, 224, 244, 252, 260, 290, 344, 390 TE only: 137B
MA.8.AR.2.AP.1b	Solve multi-step equations in one variable, with integers coefficients. Include equations with variables on both sides .	SE/TE: Pg. 92–93, 95, 98–102, 103–105, 107, 122, 164, 180, 208, 216, 224, 244, 252, 260, 290, 344, 390 TE only: Pg. 137B
MA.8.AR.2.AP.2	Select a two-step inequality from a list that represents a real-world situation and use substitution to solve .	SE/TE: Pg. 111-113 TE only: Pg. 111C, 111D
MA.8.AR.2.AP.3	Given an equation in the form of $x^2 = p$ and $x^3 = q$, use tools to determine real solutions where p is a perfect square up to 144 and q is a perfect cube from –125 to 125.	SE/TE: Pg. 329-334 TE only: Pg. 329C, 329D
Standard 3: Extend understanding of proportional relationships to two-variable linear equations.		
MA.8.AR.3.AP.1	Given a table, a graph, or equation, determine whether two quantities have a proportional relationship .	SE/TE: 151, 159, 203, 207, 308 TE only: 157B, 165B

Standard	Descriptor	Citations
MA.8.AR.3.AP.2	Given a table or graph of a linear relationship, identify the slope .	SE/TE: 150–151, 158–163, 166, 168, 171, 177–180, 182, 187, 194, 202–203, 205–206, 220, 225–227, 230–232, 344
MA.8.AR.3.AP.3	Given a table or graph of a linear relationship, identify from a list , the equation in slope-intercept form .	SE/TE: 201–207, 209–214, 217–224, 225–232 TE only: 201C, 201D, 209C, 209D, 217C, 217D, 225C, 225D
MA.8.AR.3.AP.4	Graph a two-variable linear equation from a table or an equation in slope-intercept form .	SE/TE: 170, 172
MA.8.AR.3.AP.5	Given a real-world context , identify the slope and y-intercept of a two-variable linear equation from a table, a graph or an equation in slope-intercept form.	SE/TE: 210–215, 220–221, 225–227, 229–232, 242, 246–251, 270, 336
Standard 4: Develop an understanding of two-variable systems of equations.		
MA.8.AR.4.AP.1a	Given a system of two linear equations displayed on a graph, identify the solution of a system as the point where the two lines intersect .	SE/TE: 254–260, 269
MA.8.AR.4.AP.1b	Identify the coordinates of the point of intersection for two linear equations plotted on a coordinate plane.	SE/TE: 247–249, 251–252, 253, 255–259, 269
MA.8.AR.4.AP.2	Given a system of two linear equations represented graphically on the same coordinate plane, identify whether there is one solution or no solution .	SE/TE: 262–267, 270
MA.8.AR.4.AP.3	Given two sets of coordinates for two lines, plot the lines on a coordinate plane and describe or select the solution to a system of linear equations.	SE/TE: 245–252, 253–260 TE only: 245C, 245D, 253C, 253D
Strand: FUNCTIONS		
Standard 1: Define, evaluate and compare functions.		
MA.8.F.1.AP.1a	Given a set of ordered pairs, a table or mapping diagram identify whether the relationship is a function .	SE/TE: 188, 196–199 TE only: 195B
MA.8.F.1.AP.1b	Given a set of ordered pairs, a table or mapping diagram identify the domain and range of the relation.	SE/TE: 189, 191, 193, 296

Standard	Descriptor	Citations
MA.8.F.1.AP.2	Given a function displayed as a graph or an equation , identify whether the function is a linear function.	SE/TE: 204, 207–208, 233, 235, 238, 240, 241, 280–282
MA.8.F.1.AP.3	Given a functional relationship displayed as a graph , identify where the function is increasing, decreasing or constant .	SE/TE: 233–236, 240, 241
Strand: GEOMETRIC REASONING		
Standard 1: Develop an understanding of the Pythagorean Theorem and angle relationships involving triangles.		
MA.8.GR.1.AP.1	Find the hypotenuse of a two-dimensional right triangle using the Pythagorean Theorem.	SE/TE: 361–362, 364–366, 375, 377, 380–382, 436
MA.8.GR.1.AP.2	Given the Pythagorean Theorem, determine lengths/distances between two points in a coordinate system by forming right triangles, with natural number side lengths.	SE/TE: 359–366, 383–390 TE only: 359C, 359D, 383C, 383D
MA.8.GR.1.AP.3a	Measure the sides of triangles to establish facts about the Triangle Inequality Theorem (i.e., the sum of two side lengths is greater than the third side).	SE/TE: 351–353 TE only: 351C, 351D
MA.8.GR.1.AP.3b	Substitute the side lengths of a given figure into the Pythagorean Theorem to determine if a right triangle can be formed .	SE/TE: 369–374, 391–392, 424
MA.8.GR.1.AP.4	Identify supplementary, complementary, vertical or adjacent angle relationships .	SE/TE: 121, 124–125, 137–144, 145–146 TE only: 351B
MA.8.GR.1.AP.5	Given an image , solve simple problems involving the relationships of interior and exterior angles of a triangle.	SE/TE: 124–130, 145–146, 156, 172
MA.8.GR.1.AP.6	Use tools to calculate the sum of the interior angles of regular polygons when given the formula.	SE/TE: 131–136, 146, 268
Standard 2: Understand similarity and congruence using models and transformations.		
MA.8.GR.2.AP.1	Given two figures on a coordinate plane, identify if the image is translated, rotated or reflected .	SE/TE: 9, 11, 12, 17–20, 25, 27, 32, 36, 40, 42, 44, 156

Standard	Descriptor	Citations
MA.8.GR.2.AP.2	Given a preimage and image describe the effect the dilation has on the two figures.	SE/TE: Pg. 53, 55, 56, 57, 82
MA.8.GR.2.AP.3	Dilate common polygons using graph paper and identifying the coordinates of the vertices.	SE/TE: 59–63, 67–68, 74, 82 TE only: 65B
MA.8.GR.2.AP.4	Use tools to solve mathematical problems using proportions between similar triangles .	SE/TE: 75–79, 155
Strand: DATA ANALYSIS AND PROBABILITY		
Standard 1: Represent and investigate numerical bivariate data.		
MA.8.DP.1.AP.1	Graph bivariate data using a scatter plot .	SE/TE: 275, 278–279, 281, 292–293, 295, 298, 404
MA.8.DP.1.AP.2	Given a scatter plot, identify whether the patterns of association are no association, positive association, negative association, linear or nonlinear.	SE/TE: 276–282, 293, 295–296, 297 TE only: 291B
MA.8.DP.1.AP.3	Given a scatter plot with a linear association, use tools to draw or place a line of best fit .	SE/TE: 284–290, 297
Standard 2: Represent and find probabilities of repeated experiments.		
MA.8.DP.2.AP.1	Use a tool (table, list or tree diagram) to record results of a repeated experiment.	SE/TE: 299, 301–308, 310, 318
MA.8.DP.2.AP.2	Select the theoretical probability of an event from a list .	SE/TE: 308, 318
MA.8.DP.2.AP.3	Compare actual results of an experiment with its theoretical probability (e.g., make a statement that describes the relationship between the actual results of an experiment with its theoretical probability [e.g., more, less, same, different, equal]).	SE/TE: 316 TE only: 301B