

Math - Grade 8

Idaho Department of Education Content Standards	Objective	Sub Objectives	Task Analysis	Essential Vocabulary	Sample Assessment	Resources
Cognitive level codes: • B: Memorize • C: Perform procedures • D: Demonstrate understanding • E: Conjecture, generalize, prove • F: Solve non-routine problems, make connections	Bloom's Equivalent • B = Knowledge • C = Comprehension • D = Comprehension • E = Application and Analysis • F = Synthesis	Calculator codes: o NO: student MUST NOT have a calculator while completing this item in order to assess this objective.	Shaded objectives should be assessed in the classroom, but not included on the ISAT assessment.			virtual manipulatives
Standard 1: Number and Operation						
Goal 1.1: Understand and use numbers.	8.M.1.1.1 Compare magnitudes and relative magnitudes of rational numbers, including integers, fractions, decimals, percents, and absolute values. CL: C, D Calc: CN Content Limit: Number lines and symbols $<$, $>$, $>$, $=$, and \neq may be used. Items use comparison only (e.g., compare, order), no computation. Decimals to ten-thousandths place. Fraction denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, 16, 20, 25, and 100. Integers only as negative rational numbers.	<ul style="list-style-type: none"> Identify absolute values of rational numbers Compare magnitudes and relative magnitudes of rational numbers, including integers, fractions, decimals, percents, and absolute values. 	<ul style="list-style-type: none"> Convert between fractions, decimals, and percents Order positive and negative integers and other positive rational numbers Define and evaluate absolute values Compare magnitude of numbers (including absolute values) using less than, greater than, etc. 	integer • rational numbers • absolute value • repeating and terminating decimals	<ul style="list-style-type: none"> Compare using $<$, $>$ or $=$ 3.14 ___ 3.4 $\frac{3}{4}$ ___ 75% $ -12 $ ___ -12	Compare and Order Rational Numbers (http://argyll.epsb.ca/reed/math8/strand1/1102.htm) http://www.mathsisfun.com/positive-negative-integers.html
	8.M.1.1.2 Use rational numbers, including percents and ratios, and π (pi) to solve problems. CL: C, Calc: CN Content Limit: Items may include percents used to find sales tax, discount, simple interest, net cost after discount, and percent increase or decrease. Items use whole numbers, fractions, and decimals. All items should be set in a real-world context. Items may ask for answers to be rounded to the nearest percent, whole number, dollar, cent, etc	<ul style="list-style-type: none"> Solve problems using rational numbers, including percents and ratios, and π (pi) 	<ul style="list-style-type: none"> See 8.M.1.1.1 Determine appropriate form of percent to solve problems Recognize and apply formulas to solve problems Utilize ratios to solve real life problems. 	ratio • simple interest • percent increase • percent decrease • net cost after discount • pi as a ratio (22/7) • tax • discount	<ul style="list-style-type: none"> An art collector sold $\frac{1}{3}$ of his collection to a friend. The collector then donated 50% of what was left to a museum. What part of the original collection did the collector have left? A pair of jeans regularly selling for \$55.00 is on sale for 25% off. Find the total cost including 6% tax. If you invest \$2500 at 4% interest for 7 years, what will the balance in the account be? 	Percent Notation (http://www.mathsisfun.com/percentage.html)
	8.M.1.1.3 Locate the position of rational numbers and positive real numbers on a number line. CL: C Calc: CN Content Limit: Fraction denominators limited to 2, 3, 4, 5, 6, 8, and 10. Decimals to thousandths place.	<ul style="list-style-type: none"> Locate the position of rational numbers and positive real numbers on a number line 	<ul style="list-style-type: none"> See 8.M.1.1.1 Distinguish magnitude of numbers by placing them appropriately on a number line 	real numbers	<ul style="list-style-type: none"> Plot the following points on a horizontal number line: 0, -2, $\frac{2}{3}$, $1\frac{1}{2}$, -7, $\sqrt{9}$, $\frac{7}{2}$ 	Rationals on a Number Line (http://www.studyzone.org/mtestprep/math8/e/compdec6l.cfm)
	8.M.1.1.4 Convert between standard form, scientific notation, and exponential form. CL: C Calc: CN Content Limit: Standard scientific notation of whole numbers and decimals from hundred billions through hundred-billionths. Negative exponents should be used in scientific notation only.	<ul style="list-style-type: none"> Convert between standard form, scientific notation, and exponential form. 	<ul style="list-style-type: none"> Use exponents to show repeated multiplication Differentiate between positive and negative exponents within scientific notation Convert from standard form to scientific notation Convert from scientific notation to standard form 	standard form • scientific notation • exponential form	<ul style="list-style-type: none"> Write the number in standard form: 3.2×10^3 Write the number in scientific notation: 36,500,000 	http://janus.astro.umd.edu/cgi-bin/astro/scinote.pl
	8.M.1.1.5 Apply number theory concepts (primes, composites, prime factorization, LCM, GCF). CL: C Calc: CN Content Limit: Problems involve no more than two numbers, each less than 100. Numbers are not relatively prime.	<ul style="list-style-type: none"> Identify prime and composite numbers Utilize prime factorization to find LCM and GCF 	<ul style="list-style-type: none"> Apply rules of divisibility Calculate the prime factorization of composite numbers Find the LCM and/or GCF of two numbers less than 100 	prime • composite • prime factorization • LCM • GCF • factors • multiples • relatively prime	<ul style="list-style-type: none"> Find the GCF of these numbers 48 & 72. Find the LCM of these numbers 14 & 21. 	http://www.mathsisfun.com/prime-factorization.html http://www.purplemath.com/modules/factnumb.htm http://www.purplemath.com/modules/lcm_gcf.htm http://www.helpwithfractions.com/prime-factorization-table.html

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	8.M.1.1.6 Recognize pertinent information for problem solving. CL: C, D Calc: CN Content Limit: Items should be set in a real-world context. Problems include information not required to solve. No more than two unnecessary items in a prose item. Information may be given in text or table form. Data provided should be consistent with the context of the problem (i.e., a table listing start/stop times for movies).	• Recognize pertinent information for problem solving.	• Utilize data tables to solve problems • Identify necessary information	pertinent	• A hiking trail is 43 5/9 miles long. There is a cabin every 4 1/2 miles and an outhouse every 10 miles. How many cabins are along the trail? Explain why you chose the method you used.	http://faculty.salisbury.edu/~dcccathart/MathReasoning/Polya.html
	8.M.1.1.7 Apply integers in one- and two-step common real-world situations. CL: C Calc: CN Content Limit: All items should be set in a real-world context.	• Simulate real-world situations using integers in one or two steps.	• Apply integer concepts to calculate solutions to real world situations	ascend • descend	• Mount Kilimanjaro has an altitude of 19,340 feet. The lowest point in the Dead Sea has an altitude of -1,312 feet. Which altitude is farther from sea level?	http://www.mathgoodies.com/lessons/vol5/challenge_vol5.html
	8.M.1.1.8 Use appropriate vocabulary. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	• Use appropriate vocabulary.	• Communicate using correct mathematical terminology • Communicate and interpret inequality symbols correctly		• Give the symbol for greater than or equal to.	http://www.mathwords.com/ http://www.foridahotteachers.org/isat%20resources%20files/Math%20ISAT%20Vocabulary%20List.doc
Goal 1.2: Perform computations accurately.	8.M.1.2.1 Recall the common equivalent fractions, decimals, and percents of halves, thirds, fourths, fifths, and tenths. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	• Recall the common equivalent fractions, decimals, and percents of halves, thirds, fourths, fifths, and tenths	• Memorize common fractions, decimals and percents	quarter	• Write 66% as a fraction	http://www.picadome.fcps.net/lab/curri/math/fraction_s.htm
	8.M.1.2.2 Add, subtract, multiply, and divide rational numbers. CL: C Calc: NO Content Limit: Fraction denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, 16, 20, 25, and 100. Integers only as negative rational numbers. May use up to three numbers and two operations. No grouping symbols. Expression must be clearly stated.	• Add, subtract, multiply, and divide rational numbers	• Use common denominators to add and subtract fractions • Evaluate expressions containing decimals without calculators • Perform multiplication and division of fraction utilizing appropriate reduction techniques • Evaluate expressions using positive and negative integers • State answers in simplest terms	reduce • simplify • evaluate • reciprocal • multiplicative inverse	• Write answers in simplest form: $3/4 + 7/8$ $4.5 * 56$ $5/8 \div 1/2$ $(-2) + (-5) - (-3)$	http://math.com/homeworkhelp/PreAlgebra.html http://mathplayground.com/ http://www.math.com/students/practice.html
	8.M.1.2.3 Evaluate numerical expressions with whole number exponents. CL: C Calc: NO Content Limit: Exponents must be whole numbers between 2 and 6. Results must be less than 200.	• Evaluate numerical expressions with whole number exponents	• Expand and simplify exponential terms	squared • cubed • base • exponent • power	• Evaluate 3^4	http://www.purplemath.com/modules/simpexpo.htm

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	8.M.1.2.4 Evaluate numerical expressions with rational numbers using the order of operations. (337.02.c) CL: C Calc: NO Content Limit: Operations include addition, subtraction, multiplication, division, and use of exponents and roots. Items are limited to three nestings within grouping symbols. Identifying correct order of operations shown (calculation not required) is allowed. Roots are limited to whole number square roots and cube roots. The 'square root' means the principal square root. Only the cube root of 8, 27, 64, 125, or 1,000 will need to be computed.	<ul style="list-style-type: none"> Evaluate numerical expressions with rational numbers using the order of operations 	<ul style="list-style-type: none"> Evaluate square and cube roots Recognize and apply correct order of operations See 8.M.1.2.2 	roots • square roots • cube roots • grouping symbols such as parenthesis, brackets, etc	<ul style="list-style-type: none"> $15 + 3(6-2^2)$ 	http://www.dositey.com/addsub/Mystery11.htm#s http://mathgoodies.com/lessons/vol7/operations_exponents.html
	8.M.1.2.5 Select and use an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Select and apply an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three. 	<ul style="list-style-type: none"> Simplify mental calculations first when possible Differentiate between appropriate use of pencil and paper or calculator 		<ul style="list-style-type: none"> Four picture frames cost \$5.98 each. Which would you use to find the total cost-mental math or paper and pencil? Explain your choice. 	http://regentsprep.org/Regents/math/teachers/tmental.htm http://www.amblesideprimary.com/ambleweb/mentalmaths/mentalmachine2.html http://www.amblesideprimary.com/ambleweb/mentalmaths/buttons.html http://www.bbc.co.uk/education/mathsfle/gameswheel.html
	8.M.1.2.6 Use a variety of strategies including common mathematical formulas to compute problems drawn from real life situations. (338.01.a) CL: C Calc: CN Content Limit: Word problems use content limits of other objectives at this grade level. Word problems could be such that a variety of strategies could be used. Do not assess strategies. Formulas will be given in problem and limited to area of a parallelogram, triangle, and circle, circumference of a circle, distance formula, simple interest formula, and volume of a rectangular prism.	<ul style="list-style-type: none"> Apply a variety of strategies including common mathematical formulas to compute problems drawn from real life situations 	<ul style="list-style-type: none"> Replace variables in formulas with appropriate quantities from the problem and evaluate 	formula • variable	<ul style="list-style-type: none"> Tyrone drove 1,570 miles in 4 days. Using the formula $d=rt$, find the average distance he drove each day. 	http://math2.org/math/geometry/areasvols.htm http://www.polb.com/civica/filebank/blobdload.asp?BlobID=4872 http://illuminations.nctm.org/LessonDetail.aspx?ID=L284
	8.M.1.2.7 Use appropriate vocabulary and notations. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Use appropriate vocabulary and notations 	<ul style="list-style-type: none"> Communicate using correct mathematical terminology Read numbers in exponential and radical form correctly 		<ul style="list-style-type: none"> Read 2^3 correctly 	http://math.com/school/subject2/lessons/S2U1L1GL.htm#sm1
Goal 1.3: Estimate and judge reasonableness of results.	8.M.1.3.1 Estimate to predict computation results. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Estimate to predict computation results 	<ul style="list-style-type: none"> Use a variety of appropriate strategies to estimate solutions 	compatible numbers • predict • reasonable	<ul style="list-style-type: none"> About 41% of the 13 million people in Guatemala live in cities. Estimate how many people live in cities. Tim is a car salesman and earns a 5% of the price of the cars he sells. Last month he sold 8 cars for a total of \$152,558.75. Estimate the amount Tim earned last month. 	http://www.vendian.org/envelope/
	8.M.1.3.2 Identify when estimation is appropriate and apply to problem solving situations. (337.03.b) CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Identify when estimation is appropriate and apply to problem solving situations 	<ul style="list-style-type: none"> Solve problems involving approximate answers 	approximate	<ul style="list-style-type: none"> Shaneequa has \$40 in her pocket. Can she leave a 15% tip for a restaurant bill of \$31.49? 	http://www.shodor.org/interactivate/lessons/Estimation/

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	8.M.1.3.3 Identify whether a given estimate is an overestimate or underestimate. CL: E Calc: NO Content Limit: Estimates will involve multiplication or division only.	• Identify whether a given estimate is an overestimate or underestimate	• Explain how the estimate was developed • Conclude whether given estimate is above or below appropriate estimate	overestimate • underestimate	• Bill estimated that he needed to purchase 15 12-foot pipes to complete a sprinkler project requiring 150 feet of pipe. Is this an over- or under- estimate?	http://www.studyzone.org/mtestprep/math8/g/estimationp.cfm
	8.M.1.3.4 Use a four-function calculator to solve complex grade-level problems. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	• Use a four-function calculator to solve complex grade-level problems	• Identify limitations of four function calculators in regards to order of operations		• Use a four function calculator to evaluate for $n=3$: $5n^2-5(2n-3)^2$	http://www.homeschoolmath.net/teaching/calculator-use-math-teaching.php http://www.teach-nology.com/teachers/lesson_plans/math/calculator/
	8.M.1.3.5 Formulate conjectures and justify (short of formal proof) why they must be or seem to be true. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	• Formulate conjectures and justify (short of formal proof) why they must be or seem to be true	• Predict reasonable solutions • Explain appropriate problem solving strategies	conjecture • justify • formulate	• For the problem $3+2x7-4$ Sally arrived at the solution 15 and Jacob found the solution to be 13. Who is correct? How was the incorrect solution found.	
	8.M.1.3.6 Use appropriate vocabulary and notations. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	• Use appropriate vocabulary and notations	• Communicate using correct mathematical terminology			
Standard 2: Concepts and Principles of Measurement						
Goal 2.1: Understand and use U.S. customary and metric measurements.	8.M.2.1.1 Select and use appropriate units and tools to make formal measurements in both systems. CL: C Calc: YES Content Limit: Select appropriate units and tools only. Units for length are inches, feet, yards, miles, millimeters, centimeters, and meters. Units for time are seconds, minutes, hours, days, and years. Units for weight are ounces, pounds, tons, grams, and kilograms. Units for volume (capacity) are cups, quarts, gallons, milliliters, and liters. 'use ... tools to make formal measurements' to be assessed in the classroom, not on the ISAT.	• Select and use appropriate units and tools to make formal measurements in both systems	• Determine appropriate customary and metric units for given objects • Use appropriate tools for measurement in customary and metric system	capacity • volume • liter • meter • gram • milli- • centi- • kilo-	• Measure the length of your pencil to the nearest centimeter. • What unit of measure would you use to find the capacity of a cereal box?	http://www.mathleague.com/help/metric/metric.htm http://www.funbrain.com/measure/ http://illuminations.nctm.org/WebResourceList.aspx?Ref=2&Std=3&Grd=0
	8.M.2.1.2 Apply estimation of measurement to real-world and content problems using standard measuring devices. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	• Apply estimation of measurement to real-world and content problems using standard measuring devices	• Select an appropriate unit of measure for the problem • Demonstrate magnitude of measurements	magnitude	• About how many meters long is a classroom? • Which is more- a kilometer or a mile?	http://mathforum.org/paths/measurement/m.measless.html

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	<p>8.M.2.1.3 Compare the differences and relationships among measures of perimeter, area, and volume (capacity) within both systems.</p> <p>CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.</p>	<ul style="list-style-type: none"> Compare the differences and relationships among measures of perimeter, area, and volume (capacity) within both systems 	<ul style="list-style-type: none"> Identify linear units for perimeter, square units for area, and cubic units for volume 	perimeter • area • volume • capacity • square units • cubic units • dimensions	<ul style="list-style-type: none"> Compare the perimeter and area of a square with 3 1/2" sides. What is the volume of a cube with the same dimensions? 	http://www.shodor.org/interactivate/activities/ShapeExplorer/ http://illuminations.nctm.org/LessonDetail.aspx?ID=U98
	<p>8.M.2.1.4 Given the formulas, find the circumference, perimeter, or area of triangles, circles, and quadrilaterals, and the volume and surface area of rectangular prisms.</p> <p>CL: C Calc: YES Content Limit: Items assess finding linear measure, capacity, perimeter, circumference, area, surface area, and/or volume. Items may include composite figures. Graphics are used in most of these items. Items requiring three-dimensional graphics must be realistic and include verbal descriptions. Items should be set in a real-world context. Answer options may be left in terms of π.</p>	<ul style="list-style-type: none"> Calculate the circumference and area of circles given formulas Calculate perimeter and area of triangles and quadrilaterals given formulas Calculate the volume and surface area of rectangular prisms given formulas 	Select and apply formulas to determine circumference or area of circles given either diameter or radius <ul style="list-style-type: none"> Produce answers in terms of pi and using approximations of pi Select and apply formulas for area and perimeter of triangles and quadrilaterals Combine formulas to solve composite area problems Select and apply formulas for surface area and volume of rectangular prisms 	radius • diameter • circumference • in terms of pi • quadrilateral • base • height (altitude) • rhombus • trapezoid • parallelogram • prism • lateral area • surface area	<ul style="list-style-type: none"> Use the formula $C=\pi d$ or $C=2\pi r$ to find the circumference of a circle with a radius of 3.2 cm. Leave your answer in terms of pi. Use the formula $A=1/2bh$ to find the area of a triangle with a height of 7 inches and a base of 12 inches. Use the formula $V=lwh$ to find the volume of a rectangular prism that is 2 cm x 3 cm x 5cm. 	http://www.bgfl.org/bgfl/custom/resources_fbp/client_ftp/ks2/maths/perimeter_and_area/index.html http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/mw/help/eh_popup.p.html&grade=6&chapter=20&lesson=2&title=Circumference&tm=tmfg2002e http://mathforum.org/mathtools/cell.html?&new_tp=10.12&co=g
	<p>8.M.2.1.5 Convert units of measurement within each system in problem solving situations.</p> <p>CL: C Calc: YES Content Limit: All conversions must be within the same system of measurement. Customary units may include inches, feet, yards, miles, ounces, pounds, tons, fluid ounces, cups, pints, quarts, and gallons. Metric prefixes may include milli-, centi-, and kilo- with base units of grams, liters, and meters. Time units may include years, months, weeks, days, hours, minutes, and seconds. Items should be set in a real-world context.</p>	<ul style="list-style-type: none"> Convert units of measurement within each system in problem solving situations 	<ul style="list-style-type: none"> Examine units of measure to determine agreement Determine appropriate unit to use Convert measurements 	<ul style="list-style-type: none"> see 8.M.2.1.1 	<ul style="list-style-type: none"> Sal has a garden that is 5 yards by 8 1/2 feet. He wants to put a fence around it. How many feet of fence does he need to buy? 	http://www.purplemath.com/modules/units.htm http://www.coe.uh.edu/archive/science/science_lessons/science3/metric/metric.html http://www.studyzone.org/mtestprep/math8/e/convertunitmeasless.cfm
	<p>8.M.2.1.6 Solve problems involving area of circles and the perimeter and area of rectangles and triangles.</p> <p>CL: C Calc: YES Content Limit: Graphics should be used in most of these items, as appropriate. Items should be set in a real-world context. Measurements may be in either metric or customary units. Problems may include shapes that are formed by a combination of two shapes.</p>	<ul style="list-style-type: none"> Solve problems involving area of circles and the perimeter and area of rectangles and triangles. 	<ul style="list-style-type: none"> Apply concepts of area and perimeter to solve real world problems 		<ul style="list-style-type: none"> Kendall needs to paint this basketball key which is made up of a rectangle and a semicircle. The length of the rectangle is 18 feet and the width is 12 feet. What is the area of the space that needs to be painted? 	http://www.purplemath.com/modules/perimetr.htm http://argyll.epsb.ca/jreed/math9/strand3/3108.htm
	<p>8.M.2.1.7 Use appropriate vocabulary and notations.</p> <p>CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.</p>	<ul style="list-style-type: none"> Use appropriate vocabulary and notations 	<ul style="list-style-type: none"> Determine appropriate labeling of perimeter, area and volume Communicate using correct mathematical terminology 			

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Goal 2.2: Apply the concepts of rates, ratios, and proportions.	8.M.2.2.1 Use rates, proportions, ratios, and map scales in problem-solving situations. CL: C Calc: YES Content Limit: Items involving rate should not be limited to time/distance problems, but should include other rated measures (e.g., rates of change for temperature as it changes throughout the day or speed as the rate of change in distance over time, and other derived measures). Items may require students to demonstrate knowledge of proportional relationships in scale drawings or solve real-world problems, including distance, using a scale drawing. There should be no more than two conversions within one dimension per item (e.g., years to seconds is considered four conversions: year-day-hour-minute-second). Measurements may be in either metric or customary units. Items should involve interpreting and applying various scales including those based on number lines, graphs, models, and maps. Scales should use only rational numbers. Items should be set in a real-world context. Graphics are used in most of these items.	<ul style="list-style-type: none"> Use rates, proportions, ratios, and map scales in problem-solving situations. 	<ul style="list-style-type: none"> Relate data as rates, ratios, and proportions Use proportions to solve problems involving scale Convert units of measurement as necessary 	proportion • ratio • scale • drawing • unit rate	<ul style="list-style-type: none"> During a 7.5 hour drive, a car's mileage indicator starts at 18,560 miles and ends at 18,980 miles. What is the car's rate of travel? The scale on a map is 1 inch equals 5 feet. What is the distance between two points on the map that are $8\frac{1}{2}$ inches apart on the map? 	http://standards.nctm.org/document/eexamples/chap6/6.3/index.htm http://regentsprep.org/Regents/math/scale/PracScale.htm http://illuminations.nctm.org/LessonDetail.aspx?ID=L516
	8.M.2.2.2 Determine unit rates in real-world situations. CL: C Calc: YES Content Limit: Situations must be real-world applications such as gas mileage, speed, growth, etc. Rates given in the problem should be equivalent unit rates equal to a whole number or a terminating decimal.	<ul style="list-style-type: none"> Determine unit rates in real-world situations 	<ul style="list-style-type: none"> Write and use unit rates to solve problems 	unit rate	<ul style="list-style-type: none"> A 32 ounce container of yogurt costs \$2.69. An 8 ounce container of yogurt costs \$0.75. Find the unit costs of each container. Which is the better buy? 	http://www.math.com/school/subject1/lessons/S1U2L3GL.html http://illuminations.nctm.org/LessonDetail.aspx?ID=L511
Goal 2.3: Apply dimensional analysis.	8.M.2.3.1 Illustrate the interrelationship of measurement units through dimensional analysis conversions. CL: C, D Calc: YES Content Limit: Customary units may include inches, feet, yards, miles, ounces, pounds, tons, fluid ounces, cups, pints, quarts, and gallons. Metric prefixes may include milli-, centi-, and kilo- with base units of grams, liters, and meters. Time units may include years, months, weeks, days, hours, minutes, and seconds. No more than two conversion ratios should be used in any item.	<ul style="list-style-type: none"> Demonstrate the relationship between measurement units through dimensional analysis conversions 	<ul style="list-style-type: none"> Identify common unit conversions Use appropriate conversion ratios to relate equivalent measurement units 	conversion ratio (factor)	<ul style="list-style-type: none"> Use dimensional analysis to convert 9 kilometers to meters. Use the correct conversion factor to convert 70 ounces to pounds. 	http://www.alyson.org/dimensional/fun.htm http://nlvm.usu.edu/en/nav/frames_asid_272_g_3_t_4.html?open=instructions&from=grade_g_3.html

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Standard 3: Concepts and Language of Algebra and Functions						
Goal 3.1: Use algebraic symbolism as a tool to represent mathematical relationships.	8.M.3.1.1 Use variables in expressions, equations, and inequalities. CL: D Calc: CN Content Limit: Evaluate an expression by substituting a number for every variable in the expression. Items are limited to at most three variables at a time. Items may also check solutions to equations or inequalities by substituting values for the variable(s) in an equation or inequality.	• Use variables in expressions, equations, and inequalities	• Apply order of operations to variable expressions • Evaluate expressions by replacing variables with given numbers	variable • algebraic • expression • evaluate • simplify	• Evaluate for $n=3$: $2n+5-n$ • Evaluate the expression for $m=5.2$ and $n=4.1$: $5m-2n*3$	http://www.math.com/students/practice.html http://www.purplemath.com/modules/translat2.htm
	8.M.3.1.2 Translate simple word statements and story problems into algebraic expressions and equations. CL: D Calc: CN Content Limit: Items should be set in a real-world context. Expressions and equations may contain at most three operations and may require at most two grouping symbols. May contain one or two variables.	• Translate simple word statements and story problems into algebraic expressions and equations	• Assign variables to write algebraic expressions • Represent given mathematical vocabulary with appropriate operational symbols	sum • difference • quotient • product • less/greater than • increased/decreased by	• An object's weight on Mars is 0.38 times the object's weight on Earth. Write an algebraic expression for an object's weight on Mars.	http://www.studystack.com/matching-7788 http://www.themathpage.com/alg/algebraic-expressions.htm
	8.M.3.1.3 Use symbols "<," ">," "=", "≤," "≥," and "≠" to express relationships. CL: D Calc: CN Content Limit: Items should be set in a real-world context. Item may include integers between -50 and 50, up to three operations, at most two grouping symbol, and exponents limited to 2, 3, and 4. May include one variable.	• Use symbols "<," ">," "=", "≤," "≥," and "≠" to express relationships	• Define symbols of inequality • Write inequalities and equations to represent numerical relationships	not equal	• Write the inequality for: y minus 4 is a negative number. People at least 65 years old receive a senior citizen discount.	http://www.mathsisfun.com/equal-less-greater.html http://illuminations.nctm.org/LessonDetail.aspx?ID=L740
Goal 3.2: Evaluate algebraic expressions.	8.M.3.2.1 Use and apply the following properties in evaluating algebraic expressions: commutative, associative, identity, zero, inverse, distributive, and substitution. CL: C Calc: CN Content Limit: Items can use positive fractions with no more than two-digit numerators and denominators or decimals less than ten-thousandths. Expressions may include integers between -50 and 50, up to three operations, at most two grouping symbol, and exponents limited to 2, 3, and 4. May include one variable.	• Use and apply the following properties in evaluating algebraic expressions: commutative, associative, identity, zero, inverse, distributive, and substitution	• Use associative and commutative properties to simplify expressions • Identify identity properties of addition and multiplication • Identify inverse properties of addition and multiplication • Apply distributive property to expressions • Describe zero property • Practice evaluating expressions using substitution	commutative • associative • identity • zero • inverse • distributive • substitution	• Use the appropriate property to simplify: $2.5+5.3+7.5$ $(n+14)(-8)$ $-2*13*5$	http://www.wtamu.edu/academic/anns/mps/math/mathlab/beg_algebra/beg_alg_tut8_property.htm http://www.purplemath.com/modules/numbprop.htm http://www.purplemath.com/modules/numbprop2.htm

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Idaho Department of Education Content Standards	Objective	Sub Objectives	Task Analysis	Essential Vocabulary	Sample Assessment	Resources										
	<p>8.M.3.2.2 Use the order of operations in evaluating simple algebraic expressions.</p> <p>CL: C Calc: CN Content Limit: Expressions may include parentheses, exponents, multiplication, division, addition, and/or subtraction. Items can use positive fractions with no more than two-digit numerators and denominators or decimals less than ten-thousandths. Roots are limited to square roots and cube roots. Items require students to compute only the cube root of 8, 27, 64, 125, or 1,000. May include one or two variables.</p>	<ul style="list-style-type: none"> Use the order of operations in evaluating simple algebraic expressions 	<ul style="list-style-type: none"> Recognize and apply correct order of operations 		<ul style="list-style-type: none"> Evaluate: $n+(13-n)/5$ for $n=3$ 	<p>http://www.math.com/school/subject2/lessons/S2U2L3GL.html http://www.purplemath.com/modules/evaluate.htm http://regentsprep.org/Regents/math/orderop/evalPrac.htm</p>										
	<p>8.M.3.2.3 Simplify algebraic expressions.</p> <p>CL: C Calc: CN Content Limit: Items can use positive fractions with no more than two-digit numerators and denominators or decimals less than ten-thousandths. Expressions may include integers between -50 and 50, up to three operations, at most two grouping symbol, and exponents limited to 2, 3, and 4. May include one or two variables.</p>	<ul style="list-style-type: none"> Simplify algebraic expressions 	<ul style="list-style-type: none"> Apply properties from 8.M.3.2.1 Illustrate simplifying expressions by combining like terms and using distributive property 	like terms	<ul style="list-style-type: none"> Simplify: $8c-3(c+5)$ 	<p>http://www.webmath.com/_answer.php http://www.wtamu.edu/academic/anns/mps/math/mathlab/beg_algebra/beg_alg_tut11_simp.htm http://www.jamesbrennan.org/algebra/intro%20to%20algebra/simplifying_algebraic_expression.htm</p>										
Goal 3.3: Solve algebraic equations and inequalities.	<p>8.M.3.3.1 Solve one- and two-step equations and inequalities.</p> <p>CL: C Calc: YES Content Limit: Items can use positive fractions with no more than one-digit numerators and denominators or decimals less than ten-thousandths. Equations and inequalities may include integers between -50 and 50. Variable may appear on left or right side of equal or inequality sign.</p>	<ul style="list-style-type: none"> Solve one- and two-step equations and inequalities 	<ul style="list-style-type: none"> Apply properties from 8.M.3.2.1 Apply addition and subtraction properties of equality/inequality Apply multiplication and division properties of equality/inequality including multiplicative inverse/reciprocal 	isolate • solution • reciprocal/multiplicative • inverse	<ul style="list-style-type: none"> $7+x/4=3$ $7b+3=24$ 	<p>http://www.sosmath.com/algebra/solve/solve1/s14/s14.html http://www.webmath.com/solver.html http://www.webmath.com/solverineq.html http://www.sosmath.com/algebra/inequalities/ineq01/ineq01.html</p>										
	<p>8.M.3.3.2 Match graphical representations with simple linear equations.</p> <p>CL: C, D Calc: CN Content Limit: The x- and y-axes may have different scales. Linear equations will be given in slope-intercept ($y = mx + b$) form.</p>	<ul style="list-style-type: none"> Recognize linear equations in slope-intercept form Match graphical representations with simple linear equations 	<ul style="list-style-type: none"> Identify parts of a coordinate plane Create a table of values given a linear equation and use the ordered pairs to plot a line Identify slope and y-intercept from $y = mx + b$ and represent as a graph 	origin • x- and y-axes • ordered pair • slope • y-intercept • linear • slope intercept form • coordinate plane	<ul style="list-style-type: none"> Which of the following is a graph of the equation $y=2x-1$? Graph $y=-2/3x-2$ using 0,3 and 6 as the x values 	<p>http://www.purplemath.com/modules/strtlneq.htm http://www.wtamu.edu/academic/anns/mps/math/mathlab/beg_algebra/beg_alg_tut21_graph.htm http://www.purplemath.com/modules/slopgrph2.htm</p>										
Goal 3.4: Understand the concept of functions.	<p>8.M.3.4.1 Extend patterns and identify a rule (function) that generates the pattern using rational numbers.</p> <p>CL: E Calc: YES Content Limit: Items may require a verbal description of the pattern. Variables can be used to write the rule (function). Items should not include more than two variables or include more than two operations. Fraction denominators limited to 2, 3, 4, 5, 6, 8, and 10. Decimals limited to tenths, hundredths, and thousandths. Functions must be expressible as $y = mx + b$. Items may ask the student to extend the pattern, state the rule for the pattern, or both.</p>	<ul style="list-style-type: none"> Extend patterns and identify a rule (function) that generates the pattern using rational numbers 	<ul style="list-style-type: none"> Recognize input/output relationships of functions Represent function using a table Write a rule to extend pattern Use function notation to represent relationship ($y = mx + b$ as $f(x) = mx + b$) 	function • function rule • input/output • relation	<ul style="list-style-type: none"> Graph the relation in the table. Then use the vertical-line test. Is the relation a function? <table style="margin-left: 20px;"> <tr><td>X</td><td>y</td></tr> <tr><td>-3</td><td>-4</td></tr> <tr><td>0</td><td>5</td></tr> <tr><td>1</td><td>-5</td></tr> <tr><td>3</td><td>1</td></tr> </table> <ul style="list-style-type: none"> Identify the slope and y-intercept of the graph of the equation. Then graph the equation. <p>$y = x + 1$</p>	X	y	-3	-4	0	5	1	-5	3	1	<p>http://nlvm.usu.edu/en/nav/frames_asid_191_g_3_t_2.html http://teams.lacoe.edu/documentation/classrooms/amy/algebra/6-8/activities/build/build.html http://illuminations.nctm.org/LessonDetail.aspx?id=L269</p>
X	y															
-3	-4															
0	5															
1	-5															
3	1															

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Idaho Department of Education Content Standards	Objective	Sub Objectives	Task Analysis	Essential Vocabulary	Sample Assessment	Resources
	8.M.3.4.2 Use relationships to explain how a change in one quantity may result in a change in another, and identify the relationship as a positive, negative, or neither. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Use relationships to explain how a change in one quantity may result in a change in another, and identify the relationship as a positive, negative, or neither 	<ul style="list-style-type: none"> Use a graph or table to show how a change in one quantity affects the other quantity 	quantity • rate of change		
	8.M.3.4.3 Use appropriate vocabulary and notations. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Use appropriate vocabulary and notations 	<ul style="list-style-type: none"> Communicate using correct mathematical terminology 			
Goal 3.5: Represent equations, inequalities and functions in a variety of formats.	8.M.3.5.1 Represent a set of data in a table, as a graph, and as a mathematical relationship. CL: C, D Calc: CN Content Limit: On the graph, x- and y-axes may have different scales. Items do not require students to graph or generate a table of a non-linear relation; students may read points off of a graph of a non-linear relation. Items may include real-world context. Given a continuous (i.e., individual points not indicated) linear graph, students will generate a table of values. Relationship is presented as a table, graph, or equation. The answer options will include a table, a graph, or an equation.	<ul style="list-style-type: none"> Represent a set of data in a table as a graph, and as an equation 	<ul style="list-style-type: none"> Establish input/output relationship between data in table and graph or equation 	data table	<ul style="list-style-type: none"> Write a rule for the linear function in the graph. The scatter plot shows the study times and test scores for a number of students. Describe the person represented by point A. 	http://illuminations.nctm.org/LessonDetail.aspx?ID=L416
Goal 3.6: Apply functions to a variety of problems.	8.M.3.6.1 Use patterns and linear functions to represent and solve problems. CL: D Calc: YES Content Limit: Patterns may include rational numbers. Linear functions are limited to whole number variable values.	<ul style="list-style-type: none"> Use patterns and linear functions to represent and solve problems 	<ul style="list-style-type: none"> Identify patterns in problems Discover function rule for pattern Evaluate using function 			

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Idaho Department of Education Content Standards	Objective	Sub Objectives	Task Analysis	Essential Vocabulary	Sample Assessment	Resources
Standard 4: Concepts and Principles of Geometry Goal 4.1: Apply concepts of size, shape, and spatial relationships.	8.M.4.1.1 Describe and classify relationships among types of one-, two-, and three- dimensional geometric figures, using their defining properties. CL: C, D Calc: CN Content Limit: Classify only. Figures may include triangles and quadrilaterals. Triangles may be classified by angles (acute, equiangular, obtuse, or right) or by sides (equilateral, isosceles, or scalene) or both (e.g., an obtuse isosceles triangle). Quadrilaterals may be classified according to number and position of parallel sides as well as angle measure (square, trapezoid, parallelogram, rectangle, or rhombus). Three-dimensional figures can include cubes, rectangular prisms, spheres, pyramids, cones, and cylinders. 'Describe' to be assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Describe and classify relationships among types of two- and three- dimensional geometric figures, using their defining properties 	<ul style="list-style-type: none"> Identify two- and three-dimensional figures according to their defining characteristics Compare characteristics of two- and three-dimensional figures 	acute • equiangular • obtuse • right • equilateral • isosceles • scalene • parallel • trapezoid • parallelogram • rhombus • cube • prism • sphere • pyramid • cone • cylinder • quadrilateral		http://www.321know.com/geo318x2.htm http://www.thegreatmartinicompany.com/geometry/classifying-quadrilaterals-triangles.html
	8.M.4.1.2 Draw and measure various angles and shapes using appropriate tools. CL: C Calc: YES Content Limit: Measure only using superimposed protractor. 'Draw' to be assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Draw and measure various angles and shapes using appropriate tools 	<ul style="list-style-type: none"> Recall properties of angles and shapes Make use of tools to create or measure angles and shapes 	compass • protractor		
	8.M.4.1.3 Apply the fundamental concepts, properties, and relationships among points, lines, rays, planes, and angles. CL: C Calc: CN Content Limit: Items may include parallel, intersecting and perpendicular lines including two parallel lines cut by a transversal and the congruent and supplementary angles formed. Angles may include acute, right, obtuse, and straight. Angle relationships may include complementary, supplementary, and congruent. Symbols used may include: capital letter for points, two-headed arrow above two capital letters for lines, line segment above two capital letters for line segments, one-headed arrow above two capital letters for rays, angle symbol with one capital letter or angle symbol with three capital letters for angles, and symbols for parallel, perpendicular, and right angle.	<ul style="list-style-type: none"> Apply the fundamental concepts, properties, and relationships among points, lines, rays, planes, and angles 	<ul style="list-style-type: none"> Name lines, rays, planes and angles using points Identify parallel, intersecting, perpendicular lines Name acute, obtuse, right and straight angles Identify and calculate compliments and supplements Show congruence among corresponding and vertical angles 	point • line • segment • ray • plane • complementary • supplementary • congruent • transversal • intersect • perpendicular • corresponding angles • vertical angles		

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Idaho Department of Education Content Standards	Objective	Sub Objectives	Task Analysis	Essential Vocabulary	Sample Assessment	Resources
	8.M.4.1.4 Identify and model the effects of reflections, translations, rotations, and scaling on various shapes. CL: D, E Calc: CN Content Limit: When using three-dimensional shapes: Transformations may include reflections, rotation and translations. Items are limited to one transformation per item. Rotations occur in increments of 90°. When using two-dimensional shapes: Transformations may include reflections, rotation, translations, and change of scale. Items are limited to two transformations per item. Rotations occur in increments of 45°. Algebraic rules limited to translations and reflections when the figure is shown on a coordinate grid. No algebraic rules are required for items involving more than one transformation. Rotations must indicate clockwise or counterclockwise.	<ul style="list-style-type: none"> Identify and model the effects of reflections, translations, rotations, and scaling on various shapes 	<ul style="list-style-type: none"> Use coordinate geometry to represent and examine the properties of geometric shapes Describe sizes, positions, and orientations of shapes under transformations such as: reflections, rotations, translations and dilations 	clockwise/counterclockwise • reduction/enlargement • reflection • rotation • translation • dilation • scale factor		
	8.M.4.1.5 Identify congruence, similarities, and line symmetry of shapes. CL: E Calc: CN Content Limit: Shapes limited to two-dimensional figures.	<ul style="list-style-type: none"> Identify congruence, similarities, and line symmetry of shapes 	<ul style="list-style-type: none"> Explain and illustrate the congruence, similarity and line symmetry of objects 	symmetry • congruent • similar		
	8.M.4.1.6 Explain the concept of surface area and volume (capacity). CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Explain the concept of surface area and volume (capacity) 	<ul style="list-style-type: none"> Compare and contrast the concepts of area, surface area and volume of figures 	surface area • volume • capacity • square units • cubic units		
	8.M.4.1.7 Use appropriate vocabulary and symbols. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Use appropriate vocabulary and symbols 	<ul style="list-style-type: none"> See content limit of 8.M.4.1.3 for correct figure symbols -communicate using correct mathematical terminology 			
Goal 4.2: Apply the geometry of right triangles.	No objectives at this grade level.					
Goal 4.3: Apply graphing in two dimensions.	8.M.4.3.1 Identify and plot points on a coordinate plane. CL: C Calc: CN Content Limit: Points limited to integer ordered pairs. Points may appear in any of the four quadrants or on either axis.	<ul style="list-style-type: none"> Identify and plot points on a coordinate plane 	<ul style="list-style-type: none"> List ordered pair for given point Plot given points in coordinate plane Name 4 quadrants 	x-axis • y-axis • origin • coordinate plane • ordered pair • quadrants		

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Idaho Department of Education Content Standards	Objective	Sub Objectives	Task Analysis	Essential Vocabulary	Sample Assessment	Resources
Standard 5: Data Analysis, Probability, and Statistics						
Goal 5.1: Understand data analysis.	8.M.5.1.1 Analyze and interpret tables, charts, and graphs, including frequency tables, scatter plots, broken line graphs, line plots, bar graphs, histograms, circle graphs, and stem-and-leaf plots. CL: D, E Calc: CR Content Limit: Graphics may have at most ten data categories. Circle graphs may have at most eight sectors. Scales are in increments appropriate to the application. Histogram intervals must be consistent.	<ul style="list-style-type: none"> Analyze and interpret tables, charts, and graphs, including frequency tables, scatter plots, broken line graphs, line plots, bar graphs, histograms, circle graphs, and stem-and-leaf plots 	<ul style="list-style-type: none"> Discuss and identify the correspondence between data sets and their graphical representations 	outlier • frequency table • histogram • scatter plot • broken line graph • line plot • circle graph • stem-and-leaf plot		
	8.M.5.1.2 Explain and justify conclusions drawn from tables, charts, and graphs. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Explain and justify conclusions drawn from tables, charts, and graphs 	<ul style="list-style-type: none"> Identify the relationship between data sets in tables, charts or graphs Determine and discuss any positive or negative correlation Support conclusions using mathematical reasoning 	positive/negative correlation		
	8.M.5.1.3 Use appropriate vocabulary and notations. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Use appropriate vocabulary and notations 	<ul style="list-style-type: none"> Communicate using correct mathematical terminology 			
Goal 5.2: Collect, organize, and display data.	8.M.5.2.1 Collect, organize, and display data with appropriate notation in tables, charts, and graphs, including scatter plots, broken line graphs, line plots, bar graphs, histograms, and stem-and-leaf plots. CL: C Calc: CN Content Limit: Given data, choose a display. Displays limited to scatter plots, broken line graphs, line plots, bar graphs, histograms, and stem-and-leaf plots. 'Collect' to be assessed in classroom, not on the ISAT.	<ul style="list-style-type: none"> Collect, organize, and display data with appropriate notation in tables, charts, and graphs, including scatter plots, broken line graphs, line plots, bar graphs, histograms, and stem-and-leaf plots 	<ul style="list-style-type: none"> Select appropriate graphical representation for given data Organize data as needed to create visual displays Discuss benefits of various types of graphs Draw, label, and create selected graphical representation for data 			
Goal 5.3: Apply simple statistical measurements.	8.M.5.3.1 Choose and calculate the appropriate measure of central tendency – mean, median, and mode. CL: C Calc: YES Content Limit: Items should be set in a real-world context. Items may assess finding the range, mean, median, or mode of a set of data presented in a chart, table, graph, or plot (e.g., scatter plot, line plot, or stem-and-leaf plot). Items that assess understanding of these concepts may ask students to draw conclusions from an analysis of range and/or central tendency measures. Data set should include no more than 12 data points. Data set may have an even or an odd number of data points and does not need to be in numeric order. No more than three categories of information should be used in data sets.	<ul style="list-style-type: none"> Choose and calculate the appropriate measure of central tendency – mean, median, mode and range 	<ul style="list-style-type: none"> Calculate mean, median, mode and range of data sets Choose measure of central tendency which best represents data 	mean • median • mode • range • central tendency		

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Idaho Department of Education Content Standards	Objective	Sub Objectives	Task Analysis	Essential Vocabulary	Sample Assessment	Resources
	8.M.5.3.2 Explain the significance of distribution of data, including range, frequency, gaps, and clusters. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Explain the significance of distribution of data, including range, frequency, gaps, and clusters 	<ul style="list-style-type: none"> Cite any trends which appear in data Analyze the significance of these trends 	frequency • clusters • distribution • gaps		
Goal 5.4: Understand basic concepts of probability.	8.M.5.4.1 Model situations of probability using simulations. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Model situations of probability using simulations 	<ul style="list-style-type: none"> Perform experiments and simulations and draw conclusions about probability 	probability • experimental/theoretical • probability • event		
	8.M.5.4.2 Recognize equally likely outcomes. CL: C, D Calc: CN Content Limit: Items describe familiar situations such as spinning a spinner, rolling one or two dice (does not include sum of two dice), or drawing different colored objects from a container. Equally likely outcomes must pertain to the same event.	<ul style="list-style-type: none"> Recognize equally likely outcomes 	<ul style="list-style-type: none"> Compare and predict outcomes of common situations involving equally likely outcomes 	equally likely outcome • random		
	8.M.5.4.3 Explain that probability ranges from 0% to 100% and identify a situation as having high or low probability. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Explain that probability ranges from 0% to 100% and identify a situation as having high or low probability 	<ul style="list-style-type: none"> Compare fraction, percent & decimal representations of probability Recognize and compare the range of possible outcomes 			
	8.M.5.4.4 Use the language of probability. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Use the language of probability 	<ul style="list-style-type: none"> Define probability terms 	<ul style="list-style-type: none"> Take care in using chances versus odds in probability Favorable outcome 		
	8.M.5.5.1 Make predictions based on experimental and theoretical probabilities. CL: D, E Calc: YES Content Limit: Items may include combinations of events (e.g., rolling a number cube then spinning a spinner or drawing two cards without replacement). Items may not include conditional probability. Items may require comparison between experimental and theoretical probabilities.	<ul style="list-style-type: none"> Make predictions based on experimental and theoretical probabilities 	<ul style="list-style-type: none"> Distinguish between experimental and theoretical probability Calculate theoretical probability Perform experiments, collect data, and find experimental probability Predict future outcomes based on probabilities Calculate the probability of compound events (with or without replacement) 	experimental/theoretical • probability • simple/compound event • replacement		
8.M.5.5.2 Conduct statistical experiments and interpret results using tables, charts, or graphs. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> Conduct statistical experiments and interpret results using tables, charts, or graphs 	<ul style="list-style-type: none"> Perform probability experiments Collect and organize data using tables, charts or graphs Draw conclusions from the data 				

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Idaho Department of Education Content Standards	Objective	Sub Objectives	Task Analysis	Essential Vocabulary	Sample Assessment	Resources
	8.M.5.5.3 Use appropriate vocabulary and notations. CL: Calc: Content Limit: Assessed in the classroom, not on the ISAT.	<ul style="list-style-type: none"> • Use appropriate vocabulary and notations 	<ul style="list-style-type: none"> • Communicate using correct mathematical terminology 			