

COURSE MAP -- MATH 6

INTRODUCE

Mathematical skill	Conceptual Framework	Subset
Recognize and name rational numbers	Number Sense	Number Sets
Use and determine percents (%) including those greater than 100 and less than 1	Number Sense	Relationship
Recognize angle relationships	Number Sense	Relationship
Express sequences algebraically	Patterns & Functions	Number
Given an arithmetic or geometric sequence, find the nth term of the sequence	Patterns & Functions	Number
Add and Subtract to simplify polynomial expressions	Patterns & Functions	Relationship
Write linear equations and inequalities	Patterns & Functions	Relationship
Evaluate variable expressions through numerical substitutions	Patterns & Functions	Relationship
Solve one step linear equations and inequalities	Patterns & Functions	Relationship
Solve for a variable in a formula with one step	Patterns & Functions	Relationship
Graph the line representing the solution of a linear equation	Patterns & Functions	Relationship
Identify and use relationships among parts of complex 2D and 3D figures (e.g. parallel sides, congruent faces)	Geometry	Geometry
Analyze transformations and relate properties to similarity and congruence (translation, rotation, reflection, dilation)	Geometry	Geometry
Use ratio and proportion to determine the unknown sides of similar triangles	Geometry	Geometry
Identify and use properties of subsets of polygons	Geometry	Geometry
Use lengths and areas to determine theoretical geometric probabilities	Probability	Chance
Use models/simulations o generate data	Probability	Data Organization
Scatterplot a data set in two variables and estimate a line to fit the data	Statistics	Data Organization
Determine measures of variation (range, standard deviation, outliers of a data set) using technology as appropriate	Statistics	Data Interpretation
Determine area of an irregular figure	Measurement	Types
Determine angle measures using angle relationships	Measurement	Types

COURSE MAP -- MATH 6

INTRODUCE / DEVELOP

Mathematical skill	Conceptual Framework	Subset
Recognize and use \geq , \leq , and not equal to	Number Sense	Relationship
Multiply integers	Number Sense	Computation without Calculator
Divide Fractions	Number Sense	Computation without Calculator
Divide Integers	Number Sense	Computation without Calculator
Apply order of operations to problems	Number Sense	Computation without Calculator
Recognize and use Commutative, Associative, and Distributive properties of addition and multiplication (numbers and variables)	Patterns & Functions	Relationship
Identify parallel, intersecting, and perpendicular lines	Geometry	Geometry
Relate/Compare theoretical probabilities	Probability	Chance
Predict theoretical probability	Probability	Chance
Select an appropriate method of displaying data (line, stem and leaf, box and whiskers)	Statistics	Data Organization
Recognize that data can be manipulated	Statistics	Data Interpretation
Examine basic credibility of data	Statistics	Data Interpretation
Based on data analysis, draw conclusions and develop convincing arguments	Statistics	Data Interpretation
Determine the circumference of a circle	Measurement	Types
Determine area of circle, triangle, parallelograms and trapezoids	Measurement	Types
Converts units within a system (quarts to cups, mm to cm)	Measurement	Systems
Calculate percent (%) of change (sales tax, discounts, mark-up)	Measurement	Money
Classify angle pairs	Measurement	Angles

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DEVELOP

Mathematical skill	Conceptual Framework	Subset
Recognize exponents	Number Sense	Number Sets
Write numbers in scientific notation	Number Sense	Number Sets
Properties: distributive $3*(2+4)=(3*2)+(3*4)$	Number Sense	Number Theory
Identify greatest common factor	Number Sense	Number Theory
Identify Least Common Multiple	Number Sense	Number Theory
Use and determine reciprocals	Number Sense	Relationship
Relate and convert fractions to percents	Number Sense	Relationship
Use ratio and proportion (rates, scale drawing, and similarity)	Number Sense	Relationship
Add / subtract integers	Number Sense	Computation without Calculator
Add / subtract mixed numbers	Number Sense	Computation without Calculator
Divide decimals	Number Sense	Computation without Calculator
Multiply fractions	Number Sense	Computation without Calculator
Write and evaluate powers (exponents – positive)	Number Sense	Computation without Calculator
Use Logical Reasoning (inductive and deductive)	Patterns & Functions	Logic
Relate/compare experimental probability	Probability	Chance
Use tree diagrams, tables and systematic listing to count outcomes, choices and possibilities	Probability	Chance
Express probability as decimals and/or percents	Probability	Numerical Representation
Design various methods to gather data	Probability	Data Organization
Determine measures of central tendency (mean, median, mode and range) in complex problems	Statistics	Data Interpretation
Make predictions based on analysis	Statistics	Data Interpretation
Recognize equivalence between standard and metric measures (e.g. one liter is about one quart, one km is about .6 miles)	Measurement	Systems
Use formula to find perimeter of common and complex figures	Measurement	Types
Measure/ determine volume of rectangular prisms	Measurement	Types

COURSE MAP -- MATH 6

DEVELOP / TEST

Mathematical skill	Conceptual Framework	Subset
Recognize and name whole numbers to billions	Number Sense	Number Sets
Recognize and name integers	Number Sense	Number Sets
Write whole numbers through billions	Number Sense	Number Sets
Express a number in its prime factorization form	Number Sense	Number Theory
Identify multiples	Number Sense	Number Theory
Identify prime and composite	Number Sense	Number Theory
Test for Divisibility (2,3,4,5,6,9,10)	Number Sense	Number Theory
Determine Absolute Value of an Integer	Number Sense	Number Theory
Round decimals to the nearest tenth and hundredth	Number Sense	Estimation
Read and write decimals to thousandths and beyond	Number Sense	Relationship
Compare and order decimals to the nearest thousandth and beyond	Number Sense	Relationship
Identify equivalent decimals	Number Sense	Relationship
Relate and convert fractions to decimals	Number Sense	Relationship
Multiply whole numbers 3 digit x 2 digit and beyond	Number Sense	Computation without Calculator
Multiply decimals	Number Sense	Computation without Calculator
Divide whole numbers 3 digit x 2 digit and beyond	Number Sense	Computation without Calculator
Recognize and use functions	Patterns & Functions	Relationship
Use variables to represent missing values	Patterns & Functions	Relationship
Create Generalizations	Patterns & Functions	Logic
Recognize and name: special quadrilaterals and other polygons	Geometry	Geometry
Classify triangles according to sides and/or angles	Geometry	Geometry
Classify quadrilaterals according to sides and/or angles	Geometry	Geometry
Develop spatial sense: 2D, 3D (incl. Draw/construct models)	Geometry	Geometry
Identify and locate objects using the rectangular coordinate system	Geometry	Geometry
Identify similar shapes	Geometry	Geometry
Describe and compare collected data	Statistics	Data Interpretation
Analyze data to derive meaning	Statistics	Data Interpretation
Recognize metric units of measurement	Measurement	Systems
Estimate distances from a map (using a scale)	Measurement	Estimation
Identify and calculate radius and diameter	Measurement	Types
Measure angles to nearest degree	Measurement	Angles

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