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Mathematical skill	Conceptual Framework	Subset	Curric. Lvl.	Chapter
THESE SKILLS ARE FOUND IN ALL CHAPTERS				
Use estimation in problem solving	Number Sense	Estimation	D	All
Utilizes mental math	Problem Solving	Problem Solving	D	All
Use logical reasoning (inductive and deductive)	Patterns & Functions	Logic	D	All
CHAPTER 1				
Recognize and use commutative, associative and distributive properties of addition and multiplication (numbers and variables)	Patterns & Functions	Relationship	D	1-2 1-3 1-9
Identify inverses & identities for addition and multiplication	Patterns & Functions	Relationship	I/D	1-2 1-3 1-7
Recognize and use the properties to simplify a numeric or algebraic expression	Number Sense	Computation without Calculator	I	1-2 1-9
Divide decimals	Number Sense	Computation without Calculator	D/T	1-3
Converts units within a system (metric)	Measurement	Systems	D/T	1-4
Recognize equivalences of metric measures	Measurement	Systems	D/T	1-4
Utilizes problem solving strategies	Problem Solving	Problem Solving	D	1-5
Add/subtract integers	Number Sense	Computation without	D/T	1-7

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		Calculator		
Determine measures of variation (range) using technology as appropriate	Statistics	Data Interpretation	I/D	1-7 1-10
Multiply integers	Number Sense	Computation without Calculator	D/T	1-8
Divide integers	Number Sense	Computation without Calculator	D/T	1-8
Apply the order of operations to problems	Number Sense	Computation without Calculator	D/T	1-9
Properties- distributive 3 x (2+4) = (3x2) + (3x4)	Number Sense	Number Theory	D	1-9
Determine measures of central tendency (mean, median, mode) in complex problems	Statistics	Data Interpretation	D/T	1-10
Determine measures of variation (outliers of a data set) using technology as appropriate	Statistics	Data Interpretation	I/D	1-10
CHAPTER 2				
Add and subtract to simplify polynomial expressions	Patterns & Functions	Relationship	D	2 (Supp)
Evaluate variable expressions through numerical substitution	Patterns & Functions	Relationship	D	2-1 2-2
Solve 1-step linear equations and inequalities	Patterns & Functions	Relationship	D	2-3 2-4 2-9 2-10
Recognize and use the properties to simplify a numeric or algebraic expression (multiplication & division properties of zero)	Number Sense	Computation without Calculator	I	2-4

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Solve 2-step equations and inequalities	Patterns & Functions	Relationship	I	2-6 2-9 2-10
Write linear equations and inequalities	Patterns & Functions	Relationship	D	2-7 2-8
Graph an inequality	Patterns & Functions	Relationship	I	2-8
Recognize and use ≥, ≤ and ≠	Number Sense	Relationship	D/T	2-8
CHAPTER 3				
Write and evaluate powers (0 and negative exponents)	Number Sense	Computation without Calculator	I	3 (Supp)
Write and evaluate powers (positive exponents)	Number Sense	Computation without Calculator	D/T	3-1
Recognize exponents	Number Sense	Number Sets	D/T	3-1
Apply the order of operations to problems (with exponents)	Number Sense	Computation without Calculator	D/T	3-1
Write numbers in scientific notation	Number Sense	Number Sets	D	3-2
Identify greatest common factors	Number Sense	Number Theory	D/T	3-4
Identify least common multiple	Number Sense	Number Theory	D/T	3-4
Utilizes problem solving strategies	Problem Solving	Problem Solving	D	3-7
Recognize and name rational numbers	Number Sense	Number Sets	D	3-10

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CHAPTER 4				
Add/subtract mixed numbers	Number Sense	Computation without Calculator	D/T	4-3
Multiply fractions	Number Sense	Computation without Calculator	D/T	4-4
Use and determine reciprocals	Number Sense	Relationship	D/T	4-5
Divide fractions	Number Sense	Computation without Calculator	D/T	4-5
Solve 1-step linear equations	Patterns & Functions	Relationship	D	4-6
Solve 2-step equations	Patterns & Functions	Relationship	I	4-6
Utilizes problem solving strategies	Problem Solving	Problem Solving	D	4-7
Recognize equivalences of standard measures	Measurement	Systems	D/T	4-8
Converts units within a system (customary)	Measurement	Systems	D/T	4-8
CHAPTER 5				
Use ratio and proportion (rates, scale drawings & similarity)	Number Sense	Relationship	D/T	5-2 5-4 5-5 5-6 5-7
Utilizes problem solving strategies	Problem Solving	Problem Solving	D	5-3

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Use ratio and proportion to determine the unknown sides of similar triangles	Geometry	Geometry	D	5-6
CHAPTER 6				
Relate and convert fractions to percents	Number Sense	Relationship	D/T	6-2
Use and determine percents including those greater than 100 and less than 1	Number Sense	Relationship	D	6-3
Calculate percent of change	Measurement	Money	D	6-8
CHAPTER 7				
Identify parallel, intersecting and perpendicular lines	Geometry	Geometry	D/T	7-1
Recognize angle relationships	Number Sense	Relationship	D	7-2
Determine angle measures using angle relationships	Measurement	Types	D	7-2
Classify angle pairs	Measurement	Angles	D	7-2
Identify and use properties of subsets of polygons	Geometry	Geometry	D	7-4 7-5
Identify and use relationships among parts of complex 2D figures (parallel sides, congruent faces, etc)	Geometry	Geometry	D	7-5
Utilizes problem solving strategies	Problem Solving	Problem Solving	D	7-6
CHAPTER 8				
Use formula to find perimeter of common and complex figures	Measurement	Types	D	8 (Supp)
Measure/ determine volume of other 3D figures	Measurement	Types	I	8 (Supp)
Determine area of circle, triangle, parallelograms, and trapezoids	Measurement	Types	D	8-2 8-3 8-4

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Determine area of an irregular figure	Measurement	Types	D	8-3
Determine the circumference of a circle	Measurement	Types	D	8-4
Recognize and name irrational numbers	Number Sense	Number Sets	I	8-5
Approximate an irrational number	Number Sense	Estimation	I	8-5
Write and evaluate square roots	Number Sense	Computation without Calculator	I	8-5
Use the Pythagorean theorem to find the length of any side in a right triangle	Geometry	Geometry	I/D	8-6
Identify and use relationships among parts of complex 3D figures (parallel sides, congruent faces, etc)	Geometry	Geometry	D	8-7
Determine surface area of prisms	Measurement	Types	I/D	8-8
Measure / determine volume of rectangular prisms	Measurement	Types	D/T	8-9
Utilizes problem solving strategies	Problem Solving	Problem Solving	D	8-10
CHAPTER 9				
Given an arithmetic or geometric sequence find the nth term of the sequence	Patterns & Functions	Number	D	9-2 9-5
Express sequences algebraically	Patterns & Functions	Number	D	9-3 9-4
Write linear equations and inequalities	Patterns & Functions	Relationship	D	9-8
Solve for a variable in a formula with one step	Patterns & Functions	Relationship	I/D	9-9

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CHAPTER 10				
Identify and recognize linear relationships expressed in tables and graphs	Patterns & Functions	Relationship	I	10-2 10-5
Graph the line representing the solution of a linear equation	Patterns & Functions	Relationship	D	10-2
Name ordered pairs that are solutions to a linear equation and plot these values	Patterns & Functions	Relationship	I	10-2
Determine the slope of a line	Measurement	Slope	I/D	10-3
Identify and recognize non-linear relationships expressed in tables and graphs	Patterns & Functions	Relationship	I	10-4
Evaluate variable expressions through numerical substitution	Patterns & Functions	Relationship	D	10-4
Analyze transformations and relate properties to similarity and congruence (translation, rotation, reflection)	Geometry	Geometry	D	10-6 10-7 10-8
CHAPTER 11				
Recognize and use representative samples	Probability	Data Collection	I	11 (Supp)
Based on data analysis, draw conclusions and develop convincing arguments	Statistics	Data Interpretation	D/T	11-1 11-2 11-3 11-4 11-7
Make predictions based on analysis	Statistics	Data Interpretation	D/T	11-1 11-2 11-3 11-4 11-7
Design various methods to gather data	Probability	Data Collection	D	11-2

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				11-3
Select an appropriate method of display data	Probability	Data Organization	D	11-3
Utilizes problem solving strategies	Problem Solving	Problem Solving	D	11-4
Collect a random sample from a population	Probability	Data Collection	I	11-5
Recognize that data can be manipulated	Probability	Data Organization	D	11-7
Scatterplot a data set in two variables and estimate a line to fit the data	Statistics	Data Organization	I/D	11-8
CHAPTER 12				
Use lengths and areas to determine theoretical geometric probabilities	Probability	Chance	D	12 (Supp)
Predict theoretical probability	Probability	Chance	D/T	12-1
Relate & compare theoretical probabilities	Probability	Chance	D/T	12-1
Express probability as decimals and/or percents	Probability	Numerical Representation	D/T	12-1 12-2
Relate & compare experimental probabilities	Probability	Chance	D/T	12-2
Develop simulations to predict on event	Probability	Chance	I	12-3
Use model / simulations to generate data	Probability	Data Collection	D	12-3
Use tree diagrams, tables, and systematic listing to count outcomes, choices, and possibilities	Probability	Chance	D/T	12-3 12-4
Recognize dependent / independent events	Probability	Chance	I	12-5
THIS SKILL IS NOT FOUND IN THIS TEXT				
Examine basic credibility of data	Statistics	Data	D/T	

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		Interpretation		