



Grade 6

Spirals

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## Tracking Document

***SpiralEd Solutions***

*PO Box 23942*

*Waco, TX 76702*

*[spiraledsolutions.com](http://spiraledsolutions.com)*

6.2(A)	classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers									
		S2Q2	S2Q3	S52Q3	S63Q3	S81Q3				
6.2(B)	identify a number, its opposite, and its absolute value									
		S1Q1	S9Q2	S43Q1	S68Q1	S81Q1				
6.2(C)	locate, compare, and order integers and rational numbers using a number line									
		S1Q3	S2Q1	S25Q2	S74Q2	S81Q2				
6.2(D)	order a set of rational numbers arising from mathematical and real-world contexts									
		S3Q2	S4Q2	S4Q3	S7Q2	S13Q2				
		S22Q2	S24Q1	S29Q1	S30Q2	S82Q1				
		S105Q1	S105Q2	S108Q2						
6.2(E)	extend representations for division to include fraction notation such as $a/b$ represents the same number as $a \div b$ where $b \neq 0$									
		S3Q3	S4Q1	S5Q1	S5Q2	S5Q3				
		S36Q3	S79Q3	S82Q2						
6.3(A)	recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values									
		S8Q1	S8Q2	S12Q2	S70Q2	S83Q3				
6.3(B)	determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one									

6.3(C)	represent integer operations with concrete models and connect the actions with the models to standardized algorithms								
		S6Q1	S6Q2	S20Q3	S49Q2	S82Q3			
6.3(D)	add, subtract, multiply, and divide integers fluently								
		S6Q3	S7Q1	S9Q3	S10Q1	S14Q2			
		S18Q3	S23Q2	S31Q2	S32Q3	S83Q2			
		S107Q1							
6.3(E)	multiply and divide positive rational numbers fluently								
		S7Q3	S13Q3	S19Q1	S20Q2	S22Q3			
		S23Q1	S29Q2	S29Q3	S83Q1				
6.4(A)	compare two rules verbally, numerically, graphically, and symbolically in the form of $y = ax$ or $y = x + a$ in order to differentiate between additive and multiplicative relationships								
		S14Q1	S14Q3	S17Q2	S37Q1	S85Q2			
6.4(B)	apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates								
		S12Q1	S12Q3	S13Q1	S17Q3	S17Q2			
		S25Q1	S27Q2	S28Q3	S30Q1	S32Q2			
		S40Q3	S85Q1	S108Q1					

6.4(C)	give examples of ratios as multiplicative comparisons of two quantities describing the same attribute								
		S10Q2	S10Q3	S15Q1	S76Q1	S84Q2			
6.4(D)	give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients								
		S11Q1	S11Q2	S11Q3	S66Q3	S84Q3			
6.4(E)	represent ratios and percents with concrete models, fractions, and decimals								
		S21Q1	S21Q2	S23Q3	S72Q1	S86Q1			
6.4(F)	represent benchmark fractions and percents such as 1%, 10%, 25%, $33\frac{1}{3}\%$ , and multiples of these values using 10 by 10 grids, strip diagrams, number lines, and numbers								
		S21Q3	S22Q1	S24Q2	S34Q2	S86Q2			
6.4(G)	generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money								
		S31Q1	S35Q2	S35Q3	S41Q1	S41Q2			
		S46Q1	S48Q2	S55Q3	S57Q1	S57Q2			
		S67Q2	S86Q3						
6.4(H)	convert units within a measurement system, including the use of proportions and unit rates								
		S17Q1	S17Q3	S18Q1	S18Q2	S19Q2			
		S19Q3	S120Q1	S25Q3	S26Q2	S35Q1			
		S45Q2							

6.5(A)	represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions								
		S16Q2	S16Q3	S17Q1	S42Q3	S68Q2			
6.5(B)	solve real-world problems to find the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models								
		S36Q1	S36Q2	S37Q2	S41Q3	S42Q1			
		S45Q3	S50Q2	S57Q3	S58Q1	S59Q2			
		S59Q3	S87Q1						
6.5(C)	use equivalent fractions, decimals, and percents to show equal parts of the same whole								
		S1Q1	S3Q1	S33Q1	S85Q3	S96Q3S			
6.6(A)	identify independent and dependent quantities from tables and graphs								
		S52Q1	S52Q2	S56Q3	S69Q3	S90Q3			
6.6(B)	write an equation that represents the relationship between independent and dependent quantities from a table								
		S53Q1	S54Q1	S54Q2	S62Q2	s91q1			
6.6(C)	represent a given situation using verbal descriptions, tables, graphs, and equations in the form $y = kx$ or $y = x + b$ .								
		S55Q1	S55Q2	S56Q1	S77Q2	S91Q2			
		S100Q2	S104Q2	S109Q1	S110Q1	S116Q1			
		S116Q2	S116Q3						

6.7(A)	generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization								
		S37Q3	S38Q1	S38Q2	S42Q2	S43Q2			
		S46Q2	S47Q1	S58Q1	S60Q1	S63Q1			
		S70Q3	S87Q2						
6.7(B)	distinguish between expressions and equations verbally, numerically, and algebraically								
		S26Q1	S26Q3	S27Q3	S38Q3	S87Q3			
6.7(C)	determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations								
		S27Q1	S28Q1	S28Q2	S39Q1	S88Q1			
6.7(D)	generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties								
		S39Q2	S39Q3	S40Q1	S40Q2	S43Q3			
		S46Q3	S49Q3	S53Q2	S58Q2	S59Q1			
		S60Q2	S88Q2						

6.8(A)	extend previous knowledge of triangles and their properties to include the sum of angles of a triangle, the relationship between the lengths of sides and measures of angles in a triangle, and determining when three lengths form a triangle									
		S61Q2		S61Q3		S80Q3		S92Q2		
6.8(B)	model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes									
		S62Q1		S62Q3		S63Q2		S72Q2		
6.8(C)	write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers									
		S64Q3		S65Q2		S67Q1		S93Q1		
6.8(D)	determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers									
		S65Q3		S66Q1		S66Q2		S77Q3		S93Q2
		S100Q3		S109Q3		S111Q1		S112Q1		S117Q1
		S117Q2								

6.9(A)	write one-variable, one-step equations and inequalities to represent constraints or conditions within problems									
		S31Q3	S32Q1	S44Q1	S88Q3					
6.9(B)	represent solutions for one-variable, one-step equations and inequalities on number lines									
		S48Q3	S50Q1	S53Q3	S71Q3	S90Q1				
6.9(C)	write corresponding real-world problems given one-variable, one-step equations or inequalities									
		S33Q2	S33Q3	S47Q3	S61Q1	S89Q1				
6.10(A)	model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts									
		S34Q1	S34Q3	S44Q2	S44Q3	S45Q1				
		S51Q1	S54Q3	S65Q1	S89Q2	S103Q2				
		S103Q3	S114Q1							
6,10(B)	determine if the given value(s) make(s) one-variable, one-step equations or inequalities true									
		S47Q2	S48Q1	S49Q1	S89Q3	S104Q3				
6.11(A)	graph points in all four quadrants using ordered pairs of rational numbers									
		S50Q3	S51Q2	S51Q3	S60Q3	S75Q2				
		S90Q2	S98Q1	S98Q2	S100Q1	S104Q1				
		S115Q1	S115Q2							
6.12(A)	represent numeric data graphically, including dot plots, stem-and-leaf plots, histograms, and box plots									
		S69Q2	S71Q1	S71Q2	S75Q3	S95Q1				
		S97Q1								



6.12(B)	use the graphical representation of numeric data to describe the center, spread, and shape of the data distribution									
		S67Q3 S96Q2	S68Q3	S69Q1	S70Q1	S94Q2				
6.12(C)	summarize numeric data with numerical summaries, including the mean and median (measures of center) and the range and interquartile range (IQR) (measures of spread), and use these summaries to describe the center, spread, and shape of the data distribution									
		S78Q1 S101Q1 S118Q3	S94Q1 S106Q1 S119Q1	S98Q3 S115Q3 S119Q3	S99Q1 S118Q1	S99Q2 S118Q2				
6.12(D)	summarize categorical data with numerical and graphical summaries, including the mode, the percent of values in each category (relative frequency table), and the percent bar graph, and use these summaries to describe the data distribution									
		S73Q3 S102Q1 S120Q1	S74Q3 S102Q2	S78Q3 S106Q2	S96Q1 S109Q2	S97Q2 S110Q2				
6.13(A)	interpret numeric data summarized in dot plots, stem-and-leaf plots, histograms, and box plots									
		S72Q3 S101Q2	S73Q2 S101Q3	S76Q3 S105Q3	S79Q2 S113Q1	S95Q2 S119Q2				

6.13(B)	distinguish between situations that yield data with and without variability									
		S80Q1	S80Q2	S102Q3	S103Q1					
6.14(A)	compare the features and costs of a checking account and a debit card offered by different local financial institutions									
		S73Q1	S75Q1	S91Q3	S106Q3	S111Q2				
6.14(B)	distinguish between debit cards and credit cards									
6.14(C)	balance a check register that includes deposits, withdrawals, and transfers									
		S74Q1	S92Q3	S107Q2	S112Q2	S120Q2				
6.14(D)	explain why it is important to establish a positive credit history (not tested)									
6.14(E)	describe the information in a credit report and how long it is retained									
		S76Q2	S94Q3	S107Q3	S110Q3	S113Q2				
6.14(F)	describe the value of credit reports to borrowers and to lenders									
		S78Q2	S108Q3	S111Q3	S117Q3	S120Q3				
6.14(G)	explain various methods to pay for college, including through savings, grants, scholarships, student loans, and work-study									
		S77Q1	S95Q3	S112Q3	S113Q3					
6.14(H)	compare the annual salary of several occupations requiring various levels of post-secondary education or vocational training and calculate the effects of the different annual salaries on lifetime income									
		S79Q1	S93Q3	S97Q3	S114Q2	S114Q3				