

Grade 7

Spirals

Tracking Document

SpiralEd Solutions

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	extend previous knowledge of sets and subsets					
	using a visual representation to describe					
7.2(A)	relationships between sets of rational numbers					
	•	S1Q1	S1Q2	S8Q3	S11Q1	S17Q1
		S26Q2	S81Q1			
7.3(A)	add, subtract, multiply, and divide rational numbers fluently					
	•	S1Q3	S2Q1	S8Q2	S11Q2	S17Q2
		S45Q3	S81Q2			
	apply and extend previous understandings of					
	operations to solve problems using addition,					
	subtraction, multiplication, and division					
7.3(B)	of rational numbers					
		S2Q2	S2Q3	S3Q1	S3Q2	S9Q1
		S11Q3	S12Q1	S12Q2	S17Q3	S18Q1
		S24Q1	S25Q1	S33Q3	S54Q3	S77Q2
		S81Q3	S82Q1			
	represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations,					
7.4(A)	including $d = rt$					
		S3Q3	S4Q1	S4Q2	S4Q3	S9Q2
		S18Q2	S18Q3	S29Q1	S31Q3	S39Q3
		S56Q3	S82Q2	S82Q3		
	calculate unit rates from rates in mathematical					
7.4(B)	and real-world problems					
		S5Q1	S5Q2	S9Q3	S12Q3	S19Q1
		S24Q2				



	determine the constant of proportionality $(k = y/x)$					
7.4(C)	within mathematical and real-world problems					
		S5Q3	S6Q1	S10Q1	S13Q1	S19Q2
		S24Q3	S83Q1			
	solve problems involving ratios, rates, and					
	percents, including multi-step problems involving					
	percent increase and percent decrease, and					
7.4(D)	financial literacy problems					
	, <u>,</u>	S6Q2	S6Q3	S7Q1	S7Q2	S10Q2
		S13Q2	S13Q3	S19Q3	S20Q1	S25Q2
		S25Q3	S34Q1	S60Q1	S83Q2	S83Q3
	convert between measurement systems, including					
7.4(E)	the use of proportions and the use of unit rates					
		S7Q3	S8Q1	S10Q3	S14Q1	S20Q2
		S256Q1	S49Q1	S84Q1		
	generalize the critical attributes of similarity,					
7.5(A)	including ratios within and between similar shapes					
()		S14Q2	S14Q3	S20Q3	S21Q1	S32Q2
		S75Q1	S84Q2			
	describe π as the ratio of the circumference of a					
7.5(B)	circle to its diameter					
(_)	02.010 00 100 00.000	S14Q1	S15Q2	S21Q2	S32Q1	S36Q2
		S68Q1	S84Q3			
	solve mathematical and real-world problems					
7.5(C)	involving similar shape and scale drawings					
		S15Q3	S16Q1	S16Q2	S16Q3	S21Q3



7.5(C)	(cont.)	S22Q1	S22Q2	S32Q3	S3Q1	S33Q2
		S41Q1	S53Q1	S85Q1	S85Q2	S98Q1
	represent sample spaces for simple and compound					
7.6(A)	events using lists and tree diagrams					
		S23Q2	S23Q3	S34Q3	S41Q3	S86Q1
	select and use different simulations to represent					
	simple and compound events with and without					
7.6(B)	technology (not tested)					
	make predictions and determine solutions using					
7.6(C)	experimental data for simple and compound events					
		S27Q2	S27Q3	S27Q2	S27Q3	S35Q1
		S35Q2	S43Q1	S86Q2		
	make predictions and determine solutions using					
	theoretical probability for simple and compound					
7.6(D)	events					
		S28Q1	S28Q2	S35Q3	S36Q1	S46Q2
		S56Q2	S86Q3			
	find the probabilities of a simple event and its					
	complement and describe the relationship between					
7.6(E)	the two					
		S28Q3	S29Q2	S36Q3	S37Q1	S49Q3
		S57Q1	S87Q1			
	use data from a random sample to make inferences					
7.6(F)	about a population (not tested)					



7.6(G)	solve problems using data represented in bar graphs, dot plots, and circle graphs, including part- to-whole and part-to-part comparisons and equivalents					
		S66Q1	S66Q2	S66Q3	S76Q2	S78Q2
		S94Q2	S94Q3	S117Q1	S117Q3	
7.6(H)	solve problems using qualitative and quantitative predictions and comparisons from simple experiments					
()		S29Q3	S30Q1	S30Q2	S37Q2	S37Q3
		S42Q1	S46Q1	S52Q1	S58Q3	S61Q1
		S73Q3	S87Q2	S87Q3	S101Q3	S112Q3
	determine experimental and theoretical					
	probabilities related to simple and compound					
7.6(I)	events using data and sample spaces					
(-)		S30Q3	S31Q1	S31Q2	S38Q1	S38Q2
		S42Q2	S42Q3	S51Q2	S57Q2	S70Q1
		S88Q1	S88Q2	S98Q2	S102Q3	S110Q1
	represent linear relationships using verbal					
	descriptions, tables, graphs, and equations that					
7.7(A)	simplify to the form $y = mx + b$					
	,	S28Q3	S39Q1	S39Q2	S43Q2	S43Q3
		S48Q1	S48Q2	S53Q1	S61Q2	S61Q3
		S88Q3	S89Q1	S103Q3	S106Q1	S106Q2
		S106Q3	S114Q1			
7.8(A)	model the relationship between the volume of a rectangular prism and a rectangular pyramid having both congruent bases and heights and connect that relationship to the formulas (not tested)					



7.8(B)	explain verbally and symbolically the relationship between the volume of a triangular prism and a triangular pyramid having both congruent bases and heights and connect that relationship to the formulas (not tested)					
	use models to determine the approximate formulas for the circumference and area of a circle and					
7.8(C)	connect the models to the actual formulas (not tested)					
	solve problems involving the volume of					
	rectangular prisms, triangular prisms, rectangular					
7.9(A)	pyramids, and triangular pyramids					
. ,		S64Q2	S64Q3	S93Q2	S93Q3	S110Q2
		S110Q3	S114Q3	S115Q1	S115Q3	S116Q2
		S117Q2	S118Q2			
7.9(B)	determine the circumference and area of circles					
		S50Q2	S51Q1	S51Q3	S59Q2	S59Q3
		S60Q2	S91Q3	S92Q1	S107Q1	S107Q2
		S107Q3	S111Q2	S113Q1	S116Q3	S119Q1
	determine the area of composite figures containing					
	combinations of rectangles, squares,					
	parallelograms, trapezoids, triangles, semicircles,					
7.9(C)	and quarter circles					
		S52Q2	S52Q3	S60Q3	S92Q2	S92Q3
		S109Q1	S109Q2	S109Q3	S111Q1	S112Q1
		S113Q2	S116Q1	S118Q1	S119Q3	S120Q3



	solve problems involving the lateral and					
	total surface area of a rectangular prism,					
	rectangular pyramid, triangular					
	prism, and triangular pyramid by determining the					
7.9(D)	area of the shape's net					
7.3(D)	area of the shape's net	S63Q2	S63Q3	S65Q1	S65Q3	S94Q1
		S100Q3	S111Q3	S112Q2	S120Q2	004Q1
	write one-variable, two-step	010000	311143	311292	312342	
	equations and inequalities to represent constraints					
7.10(A)	or conditions within problems					
7.10(/1)	or conditions within problems	S40Q1	S40Q2	S44Q1	S44Q2	S54Q1
		S62Q3	S65Q2	S89Q2	S89Q3	00101
	represent solutions for one-variable, two-	33243	33342	33342	333 43	
7.10(B)	step equations and inequalities on number lines					
7.10(D)	step equations and inequalities on number lines	S40Q3	S44Q3	S45Q1	S50Q3	S54Q2
		S67Q1	S90Q1	S98Q3	00000	00402
	write a corresponding real-world problem given a	30, 4,	3334.	33343		
7.10(C)	one-variable, two-step equation or inequality					
7.10(0)	one-variable, two-step equation of mequanty	S45Q2	S46Q3	S47Q1	S55Q2	S55Q3
		S72Q2	S90Q2	S99Q1	33342	30000
	model and solve one-variable, two-step equations					
7.11(A)	and inequalities					
(,	1	S47Q2	S47Q3	S48Q3	S56Q1	S57Q3
		S58Q1	S90Q3	S91Q1	S104Q3	S105Q3
		S108Q1	S108Q2	S108Q3	S115Q2	S115Q3
	determine if the given value(s) make(s) one-					
7.11(B)	variable, two-step equations and inequalities true					
. ,	1 1	S49Q2	S50Q1	S58Q2	S59Q1	S63Q1
		S76Q3	S91Q2	S99Q2		



	write and solve equations using geometry					
	concepts, including the sum of the angles in a					
7.11(C)	triangle, and angle relationships					
		S62Q1	S64Q1	S68Q3	S93Q1	S99Q3
		S100Q1	S100Q2			
	compare two groups of numeric data using					
	comparative dot plots or box plots by comparing					
7.12(A)	their shapes, centers, and spreads					
		S67Q2	S67Q3	S68Q1	S78Q3	S95Q1
		S95Q2	S119Q2	S120Q1		
	use data from a random sample to make inferences					
7.12(B)	about a population					
		S69Q1	S70Q2	S71Q1	S71Q2	S72Q1
		S95Q3	S113Q3			
	compare two populations based on data in random					
	samples from these populations, including					
	informal comparative inferences about differences					
7.12(C)	between the two populations					
	1 1	S69Q2	S70Q3	S72Q3	S73Q1	S73Q2
		S96Q1	S114Q2			
	calculate the sales tax for a given purchase and					
7.13(A)	calculate income tax for earned wages					
, ,		S69Q1	S74Q1	S74Q2	S74Q3	S96Q2
		S101Q1	S101Q2			



	identify the components of a personal budget, including income; planned savings for college, retirement, and emergencies; taxes; and fixed and					
	variable expenses, and calculate what percentage					
7.13(B)	each category comprises of the total budget					
		S77Q1	S77Q2	S78Q1	S97Q1	S103Q1
		S103Q2				
7.13(C)	rewrite polynomial expressions of degree one and degree two in equivalent forms using the distributive property;					
		S79Q1	S79Q2	S79Q3	S97Q2	S104Q1
		S104Q2				
	use a family budget estimator to determine the minimum household budget and average hourly wage needed for a family to meet its basic needs in					
7.13(D)	the student's city or another large city nearby					
		S80Q1	S80Q2	S80Q3	S97Q3	S105Q1
		S105Q2				
	calculate and compare simple interest and					
7.13(E)	compound interest earnings					
, ,		S22Q3	S23Q1	S34Q2	S41Q2	S53Q3
		S71Q3	S85Q3			
	analyze and compare monetary incentives,					
7.13(F)	including sales, rebates, and coupons					
		S75Q2	S75Q3	S76Q1	S96Q3	S102Q1
. ,		OIUQL				

