BENCHMARK COMPLEXITY REPORT MATHEMATICS GRADE 3



Key: OCS Code = The benchmark code. Consists of Grade (K-8), Domain (2-3 character alpha code), Strand (1-3 character alpha code), Standard (1-9), Benchmark Number (1 or 1-1 and up), and Complexity (a, b, c).

Benchmark = The wording of the benchmark.

ccss code = Common Core State Standards, developed by National Governors Association Center for Best Practices, Council of Chief State School Officers (www.corestandards.org).

CRS Strand = ACT College Readiness Standards developed by ACT, Inc. (www.act.org).

The CRS Strands are: BOA = Basic Operations & Applications, PSD = Probability/Statistics/Data, NCP = Numbers/Concepts/Properties, XEI = Expression/Equation & Inequality,

GRE = Graphical Representations, PPF = Properties of Plane Fugures, MEA = Measurement, FUN = Functions.

	a. Low Complexity				b. Intermediate Complexity				c. High Complexity		
OCS Code	Benchmark	CCSS Code	CRS Strand	OCS Code	Benchmark	CCSS Code	CRS Strand	OCS Code	Benchmark	CCSS Code	CRS Stran
				DO	DMAIN: Standards for Mathemat	ical Conte	ent				
		1			Operations and Algebraic Thinkin						
.SMC.OA.1.1.	Interpret products of whole numbers	3.OA.A.1	воа	3.SMC.OA.1.3- 1.b	Use multiplication and division with numbers up to 100 to solve word problems in situations involving equal groups	3.OA.A.3	BOA	3.SMC.OA.2.1. c	Multiply and divide using properties of operations	3.OA.B.5	ВОА
3.SMC.OA.1.2.	Interpret whole-number quotients of whole numbers	3.OA.A.2	воа	3.SMC.OA.1.3- 2.b	Use multiplication and division with numbers up to 100 to solve word problems in situations involving arrays	3.OA.A.3	ВОА	3.SMC.OA.4.1- 1.c	Solve two-step word problems using the four operations	3.OA.D.8	ВОА
				3.SMC.OA.1.3- 3.b	Use multiplication and division with numbers up to 100 to solve word problems in situations involving measurement quantities	3.OA.A.3	ВОА	3.SMC.OA.4.1- 2.c	Represent two-step word problems using equations with a letter standing for the unknown quantity	3.OA.D.8	XEI
				3.SMC.OA.1.4. b	Determine the unknown whole number in a multiplication or division equation relating three whole numbers	3.OA.A.4	воа	3.SMC.OA.4.1- 3.c	Assess the reasonableness of an answer after solving a two-step word problems using the four operations	3.OA.D.8	ВОА
				3.SMC.OA.2.2. b	Show that division is the multiplication of the dividend and divisor of a number	3.OA.B.6	воа	3.SMC.OA.4.2- 1.c	Identify arithmetic patterns found in an addition or multiplication table	3.OA.D.9	NCP
				3.SMC.OA.3.1. b	Multiply and divide numbers up to 100 fluently	3.OA.C.7	BOA	3.SMC.OA.4.2- 2.c	Explain arithmetic patterns found in an addition or multiplication table by using properties of operations	3.OA.D.9	NCP
					Number and Operations in Base T	en			1.0	•	•
3.SMC.NBT.1.1 a	Use place value understanding to round whole numbers to the nearest 10 or 100	3.NBT.A.1	NCP	3.SMC.NBT.1.3 .b	Use strategies based on place value and properties of operations to multiply one-digit whole numbers by multiples of 10 in the range 10-90	3.NBT.A.3	NCP				
3.SMC.NBT.1.2 a	Use strategies and algorithms to fluently add and subtract numbers up to 1000	3.NBT.A.2	BOA								
			I		Number and Operations - Fraction				In the state of		luan
3.SMC.NF.1.1- 1.a	Show that a fraction 1/b is equal to the quantity formed by 1 part when a whole is partitioned into b equal parts	3.NF.A.1	NCP	3.SMC.NF.1.2- 1.b	Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts	3.NF.A.2a	GRE	3.SMC.NF.1.3- 2.c	Generate simple equivalent fractions	3.NF.A.3b	NCP
3.SMC.NF.1.1- 2.a	Show that a fraction a/b is equal to the quantity formed by a parts of size 1/b	3.NF.A.1	NCP	3.SMC.NF.1.2- 2.b	Demonstrate that each part on a number line diagram has size 1/b and that the endpoint of the part based at 0 locates the number 1/b	3.NF.A.2a	GRE	3.SMC.NF.1.3- 3.c	Use a fraction model to explain why fractions are equivalent	3.NF.A.3b	NCP
				3.SMC.NF.1.2- 3.b	Represent a fraction a/b on a number line diagram by marking off "a" lengths 1/b from 0	3.NF.A.2b	GRE	3.SMC.NF.1.3- 5.c	Express whole numbers as fractions	3.NF.A.3c	NCP
				3.SMC.NF.1.2- 4.b	Explain that an interval on a number line diagram has size a/b and that its endpoint locates the number a/b on the number line	3.NF.A.2b	GRE	3.SMC.NF.1.3- 6.c	Compare the size of two fractions with the same numerator or denominator	3.NF.A.3d	NCP
				3.SMC.NF.1.3- 1.b	Identify two fractions as equivalent if they are the same size or the same point on a number line	3.NF.A.3a	GRE	3.SMC.NF.1.3- 7.c	Explain why comparisons are valid only when two fractions with the same numerator or denominator refer to the same whole	3.NF.A.3d	NCP
				3.SMC.NF.1.3- 4.b	Relate fractions to whole numbers	3.NF.A.3c	NCP	3.SMC.NF.1.3- 8.c	Record the results of comparisons of two fractions with the same numerator or denominator with the symbols >, =, and <	3.NF.A.3d	NCP
								3.SMC.NF.1.3- 9.c	Use a fraction model to justify conclusions based on comparisons of fractions with the same numerator or denominator	3.NF.A.3d	NCP
					Measurement and Data	l					
SSMC.MD.1.1-	Tell time to the nearest minute	3.MD.A.1	MEA	3.SMC.MD.1.1- 4.b	Solve word problems involving addition and subtraction of time intervals in minutes	3.MD.A.1	MEA	3.SMC.MD.1.2- 3.c	Solve one-step word problems involving masses or volumes that are given in the same units	3.MD.A.2	MEA

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1	OCS Code		CCSS Code	CRS Strand	OCS Code		CCSS Code	CRS Strand	OCS Code		CCSS Code	CRS Strand
	3.SMC.MD.1.1-	Write time to the nearest minute	3.MD.A.1	MEA	3.SMC.MD.1.2-		3.MD.A.2	MEA	3.SMC.MD.2.1-		3.MD.B.3	PSD
SAME MISS Miss and service with horse and presented with horse Miss Mis	3.SMC.MD.1.1- 3.a	Measure time intervals in minutes	3.MD.A.1	MEA		Estimate liquid volumes and masses of objects	3.MD.A.2	MEA	3.SMC.MD.2.1- 2.c	Draw a scaled bar graph to represent a data set	3.MD.B.3	PSD
La wild where the narrodinal coale is marked offile with whole with whole number of lengths to the narrod retarning with whole number of lengths with survival or lengths and in a research red with whole number of lengths and in a research red with whole number of lengths and in a research red with whole number of lengths and in a research red with whole number of lengths are a real research the distributive property and the second of the second o	3.SMC.MD.2.2- 1.a		3.MD.B.4	MEA		Compare methods of finding the area of a	3.MD.C.7a	MEA		Solve one and two-step "how many more" and "how many less" problems using information	3.MD.B.3	PSD
1	3.SMC.MD.3.1- 1.a	Relate area to attributes of plane figures	3.MD.C.5a	MEA		multiplying side lengths to find areas of rectangles	3.MD.C.7b	MEA		ruler, where the horizontal scale is marked off in	3.MD.B.4	PSD
SAMC MD 3.2 Measure areas by counting with equares SAMC C6 MIA	3.SMC.MD.3.1- 2.a	Identify concepts of area measurement	3.MD.C.5b	MEA						number side lengths a and b + c is the sum of a \times	3.MD.C.7c	MEA
dist lengths	3.SMC.MD.3.2.	Measure areas by counting unit squares	3.MD.C.6	MEA						Use models to represent the distributive property in finding the area of a rectangle with whole-	3.MD.C.7c	MEA
SAMCAND 3.1 Show that the area of rectangles a didflower and soft form-overlapping rectangular and show the same of more productions and show the same productions and different perimeters. SAMCAND 2.1 Show real world and mathematical problems by should not be same particular and show the same promises of polygons and different perimeters of polygons and different perimeters of polygons and different perimeters. SAMCAND 2.1 Show real world and mathematical problems by should not show the same perimeters of polygons and different perimeters. SAMCAND 2.1 Show real world and mathematical problems by should not show the same particular polymon by should not show the same particular polymon by should not show the same and should different perimeters. SAMCAND 2.1 Show real world and mathematical polymon by should not show the same and should different perimeters. SAMCAND 2.1 Show real world and mathematical polymon by should not show the same and should different perimeters. SAMCAND 2.1 Show real world and mathematical polymon by should not should			3.MD.C.7a	MEA					3.SMC.MD.3.3-		3.MD.C.7d	MEA
8.c. garts 3.5MC.ND.3.5 loke real world problems by adding the areas of \$M.DC.7d MEA 9.c. and on-overlapping rectangular parts 1.5MC.MD.4.1 solve real world and mathematical problems of adding perimeters of polygons and mathematical problems of adding perimeters of polygons and mathematical problems by a \$M.DD.8 MEA 2.c. and world and mathematical problems by a \$M.DD.8 MEA 2.c. and world and mathematical problems by a \$M.DD.8 MEA 3.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 3.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 3.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 3.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 3.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 3.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 3.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 3.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.A.1.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.A.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.A.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1 solve real world and mathematical problems by a \$M.DD.8 MEA 4.5MC.MD.4.1	1.d	side lerigins							3.SMC.MD.3.3-		3.MD.C.7d	MEA
Security Securi									3.SMC.MD.3.3-		3.MD.C.7d	MEA
1.c calculating perimeters of polygons 3.MO.D.8 MEA 3.MC.M.D.1.1 Solve real world and mathematical problems by 2.c exhibiting rectangles with the same perimeter and different areas and different areas and different areas and different perimeters and different areas and different perimeters 3.MO.D.8 MEA 3.MC.D.1.1 MEA 3.MC.D.1.1 MEA 3.MC.D.1.2 1.C										Solve real world problems by adding the areas of	3.MD.C.7d	MEA
2.c exhibiting rectangles with the same perimeter and different areas and different areas and different areas and different areas and different perimeters. 3.SMC.6.1.1 Recognize that shapes in different categories may 3.6.A.1 MEA 3.SMC.G.1.2 Partition shapes into parts with equal areas 3.G.A.2 MEA 1.b shapes attributes, and that the shapes attributes and the same perimeters. 3.SMC.G.1.1 Identify examples of quadrilaterals including rhombods, rectangles, and squares shapes and squares and state of the whole shapes into parts with equal areas 3.G.A.2 MEA 3.SMC.G.1.2 Express the area of equally partitioned parts as a 3.G.A.2 MEA 3.SMC.G.1.2 in form the same perimeter and squares shapes into parts with equal areas 3.G.A.2 MEA 3.SMC.G.1.2 in form the same perimeter and same area of equally partitioned parts as a 3.G.A.2 MEA 3.SMC.G.1.2 in form the same perimeter and same area of equally partitioned parts as a 3.G.A.2 MEA 3.SMC.G.1.1 in form the same perimeter and same area of equally partitioned parts as a 3.G.A.2 MEA 3.SMC.G.1.2 in form the same perimeter and same area of equally partitioned parts as a 3.G.A.2 MEA 3.SMC.G.1.1 in form the same perimeter and same area of equally partitioned parts as a 3.G.A.2 MEA 3.SMC.G.1.2 in form the same perimeter and same area of equally partitioned parts as a 3.G.A.2 MEA 3.SMC.G.1.1 in fraction of the whole area of equally partitioned parts as a 3.G.A.2 MEA 3.SMC.G.1.2 in fraction of the whole area of equally partitioned parts as a 3.G.A.2 MEA 3.SMC.G.1.2 in fraction of the whole area of equally partitioned parts as a 3.G.A.2 mean and same area of equally partitioned parts as a 3.G.A.2 mean and same area of equally partitioned parts as a 3.G.A.2 mean and same area of equally partitioned parts as a 3.G.A.2 mean and same area of equally partitioned parts as a 3.G.A.2 mean and same area of equally partitioned parts as a 3.G.A.2 mean and same area of equally partitioned parts as a 3.G.A.2 mean and same area of equally partitioned parts as a 3.G.A.2 mean and same area of equally p											3.MD.D.8	MEA
Solve Problems SAMC.G.1.1- Draw examples of quadrilaterals that are not thombuses, rectangles, and squares Solve Problems SAMP.2. Reason abstractly and quantitatively in them SAMP.2. Reason abstractly and quantitatively in MP3 SAMP.2. Reason abstractly and quantitatively in MP4 SAMP.2. SAMP.3. Mean SAMP.3. Mean SAMP.3. SAMP.3. SAMP.3. SAMP.3. SAMP.3. Mean SAMP.3. SAMP.										exhibiting rectangles with the same perimeter	3.MD.D.8	MEA
Secondary SAMC G.1.1 Recognize that shapes indifferent categories may 3.G.A.1 MEA 3.SMC G.1.2 Partition shapes into parts with equal areas 3.G.A.2 MEA 1.C										Solve real world and mathematical problems by exhibiting rectangles with the same area and	3.MD.D.8	MEA
1.b share attributes, and that the shared attributes can define a larger category and effine a larger category and define a larger c			,									
2.b drombuses, rectangles, and squares 3.SMC.G.1.1 Draw examples of quadrilaterals that are not rhombuses, rectangles, and squares DOMAIN: Standards for Mathematical Practices Solve Problems Solve Problems Reason Reason Construct Arguments Solve Arguments Solve Problems Solve Solve Froblems Solve Solve Solve Froblems Solve						share attributes, and that the shared attributes	3.G.A.1	MEA		Partition shapes into parts with equal areas	3.G.A.2	MEA
DOMAIN: Standards for Mathematical Practices Solve Problems Solve Pro							3.G.A.1	MEA			3.G.A.2	MEA
Solve Problems Solve Problems Solve							3.G.A.1	MEA				
Reason Reason Construct Arguments MP1 MP2 Construct Arguments MP3 SMP.1.c Make sense of problems and persevere in solving them them MP1 MP2 MP2 Construct Arguments Construct Arguments MP3 SMP.3.c Construct viable arguments and critique the reasoning of others MP3 MP4 MP5 MP5 MP6 MP7 MP6 MP7 MP7					DO	MAIN: Standards for Mathemati	cal Practi	ces				
Reason Reason S.SMP.2.c Reason abstractly and quantitatively MP2 Construct Arguments S.SMP.3.c Construct viable arguments and critique the reasoning of others Model S.SMP.4.c Model with mathematics MP4 Use Tools Attend to Precision Use Structure Use Structure S.SMP.6.c Attend to precision MP6 MP3 MP4 MP5 MP5 MP6			1			Solve Problems	1		2 CMAD 4 -	Male ages of multiple and a second se	IAD1	
SAMP.2.c Reason abstractly and quantitatively MP2						_			3.5MP.1.C		INIP1	
Construct Arguments S.SMP.3.c Construct viable arguments and critique the reasoning of others Model S.SMP.4.c Model with mathematics MP4 Use Tools S.SMP.5.c Use appropriate tools strategically MP5 Attend to Precision S.SMP.6.c Attend to precision MP6 Use Structure S.SMP.7.c Look for and make use of structure MP7						Reason			3.SMP.2 r	Reason abstractly and quantitatively	MP2	
SAMP.3.c Construct viable arguments and critique the reasoning of others MP3 Passening of others Passening others Pa			L			Construct Arguments			3.3/411 .2.0	meason asserdedly and quantitudivery	1 2	
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Use Tools			1			Model				Le company of		
Attend to Precision Structure 3.SMP.5.c Use appropriate tools strategically MP5 Attend to Precision S.SMP.6.c Attend to precision MP6 We Structure 3.SMP.7.c Look for and make use of structure MP7						Use Tools			3.SMP.4.c	Model with mathematics	MP4	
3.SMP.6.c Attend to precision MP6									3.SMP.5.c	Use appropriate tools strategically	MP5	
3.SMP.7.c Look for and make use of structure MP7									3.SMP.6.c	Attend to precision	MP6	
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OCS Code	Benchmark	CCSS Code	CRS Strand	OCS Code	Benchmark	CCSS Code	CRS Strand	OCS Code	Benchmark	CCSS Code	CRS Strand
								3.SMP.8.c	Look for and express regularity in repeated reasoning	MP8	