

**Farmingdale Public Schools
Grade Seven Mathematics Curriculum
Scope and Sequence**

Grade 7 - Mathematics Curriculum

Unit: I. Number Concepts

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
				Refer to:
1	1. What are the place values from millions to millionths?	12, 13	2A	MAP ques. 34 & SRA 1,2 , SRB 1, 2
2	2. How do you read and write a number in standard, short word, and expanded form?	12, 13	2A	
3	3. What does equivalent mean (Optional)?	12, 13 241-241	2A	
4	4. How do we compare and order numbers?	14-27	2D	MU7 - pg 80
5	5. How do we round whole numbers?	86-87 48-49	6A	MU7 - pg 228
6	6. Review.			
7	7. Test			

Unit: II. Mathematical Reasoning

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
8	1. How do we solve word problems using multiplication and division?	2, 4	1A	SRA 3-6, SRB 3,4 SRC 1, SRD 4 MU7 - pg 311-312
9	2. How do we solve problems using trial and error?	8, 64	1A	MU7 - pg 3

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Unit: II. Mathematical Reasoning

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
10	3. How do we solve problems working backwards?	306, 307	1A	MU7- pg 9
11	4. How do we solve problems using charts and tables?	5, 6	1A	MU7 - pg 1 MAP ques. # 10, 12, 13, 15, 18
12	5. How do we solve problems using diagrams?	104	1A	MAP ques. # 24, 26, 27, 39, 42
13	6. Review			
14	7. Test			

Unit: III. Integers

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
15	1. What is an integer?	538-539	2A	MU7 - pg. 42
16	2. How do we find the absolute value of integers?	538-539	2A, 3E	MU7 - pg. 56, 89
17	3. How do we compare and order integers?	538-539	2D	
18	4. How do we add integers?	542-543	3A	MU7 - pg. 85
19	5. How do we subtract integers?	546-547	3A	MU7 - pg. 85
20	6. How do we multiply integers?	554-555	3A	MU7 - pg. 85
21	7. How do we divide integers?	556-557	3A	MU7 - pg. 85

Unit: III. Integers

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
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22	8. Practice operations with integers.	570-572	3A	Refer to : SRD 2
23	9. Practice operations with integers.	570-572	3A	
24	10. Equation solving with integers.		3A	
25	11. Review			
26	12. Test			

Unit: IV. Algebra

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
27	1. What is the order of operations?	170-171	3C	MU7 - pg. 101, 102
			MAP ques. # 1, 10, 12, 18, 19, 24, 25, 26, 35, 41	
28	2. Practice with the order of operations.	170-171	3C	MU7- pg. 103
29	3. How do we evaluate algebraic expressions?	172-173	4E	MU7 - pg. 255
30	4. How do we translate word phrases into algebraic expressions?	174-177	4E	MU7 - pg. 152
				SRD 1, 3
31	5. How do we translate algebraic expressions into word phrases?	174-177	4E	MU7 - pg. 154
32	6. How do we solve one step equations with addition and subtraction?	182-183	7C	MU7 - pg. 119, 261
33	7. Practice one step equations (word problems).	182-183	7C	MU7 - 91, 156, 283

Unit: IV. Algebra

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
34	8. How do we solve one step equations with multiplication and division?	184-185	7C	MU7 - pg. 261

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35	9. Practice one step equations (word problems).	184-185	7C	MU7 - pg. 263
36	10. How do we solve two-step equations?	90-91	7C	MU7 - pg. 91
37	11. Practice solving two-step equations.		7C	MU7 - 91, 263, 269
38	12. Review			
39	13. Test			

Unit: V. Patterns and Number Theory

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
40	1. What are the arithmetic sequences and patterns?	206-210	1C, 7A	MU7 pg. 35, 253
41	2. What are the sums of sequences?	208-209	7A	
42	3. What are the divisibility rules for 2, 3, 4, 5, 6, 8, 9, and 10? (Optional: 7, 11, and 25)	212-213	2C	MU7 pg. 72, 74
43	4. What are prime, composite, and relatively prime numbers?	214-215	2C	MU7 pg. 68
44	5. How do we find the prime factorization of a number (exponential form)?	214-215	2C	MAP ques. # 3, 10

Unit: V. Patterns and Number Theory

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
45	6. How do we find the GCF by: a) listing factors b) prime factorization?	220-221	2C	
46	7. How do we find the LCM by: a) listing factors b) prime factorization?	222-223	2D	

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47	8. Practice finding GCF & LCM.		2D	
48	9. Review			
49	10. Test			

Unit: VI. Rational Numbers

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
50	1. What is rational number?	240-241	2A	MU7 pg. 42
51	2. How do we write equivalent fractions in lower and higher terms?	240-241	2A	
52	3. How do we convert improper fractions and mixed numbers?	242-243	2A	
53	4. How do we convert fractions to decimals (with terminating decimals)?	244-247	2A	MU7 pg. 48
54	5. How do we compare and order fractions?	248-249	2D	MU7 pg. 80
55	6. Practice converting fractions to decimals (with terminating decimals)?	244-247	2A	

Unit: VI. Rational Numbers

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
56	7. How do we add and subtract fractions with like or unlike denominators?	256-257	3A	
57	8. How do we add and subtract mixed numbers?	258-259	3A	MU7 pg. 85
58	9. How do we subtract mixed numbers with borrowing?	260-261	3A	

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59	10. How do we multiply fractions, mixed numbers, an whole numbers?	282-287	3A	MU7 pg. 85
60	11. How do we divide fractions?	292-293	3A	MU7 pg. 85
61	12. How do we divide fractions by using common denominators? (Optional)	290-291	3A	
62	13. How do we divide mixed numbers?	296-297	3A	Refer to MAP ques # 2, 42
63	14. How do we simplify complex fractions?		3A	
64	15. Practice the order of operations with rational numbers.		3A, 3C	
65	16. What are the properties of addition and multiplication with rational #s?	287	3D	
66	17. What fractions will convert to repeating decimals?	244-247	2A	
67	18. How do we solve equations with rational numbers?	262-263 300-301	7C	
68	19. Practice solving equations with rational numbers.		7C	
69	20. How do we find the powers, roots, & square roots with rational numbers?	94-95, 356-357	3A	

Unit: VI. Rational Numbers

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
70	21. What are irrational numbers?	102-103	2D	MU7 pg. 42
71	22. How do we approximate the square root by the trial and error method & the divide and average method? (Optional)		2D	MU7 pg. 82
72	23. What are the real numbers and the real number line?	245	2A	MU7 pg. 148

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73	24.Review			
74	25.Test			

Unit: VII. Decimals

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
75	1. How do we add and subtract whole numbers and decimals?	46-69	3A	MU7- pg. 85
76	2. How do we multiply whole numbers and decimals?	46-69	3A	Refer to: MAP ques. # 29
77	3. Practice multiplying whole numbers and decimals.	46-69	3A	& SRD 4
78	4. How do we divide whole numbers and decimals?	46-69	3A	
79	5. How do we divide decimals by decimals?	46-69	3A	
80	6. Practice dividing decimals and whole numbers.	46-69	3A	

Unit: VII. Decimals

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
81	7. Review			
82	8. Test			

Unit VIII: Metric System, Exponents, Number Properties

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
83	1. What are the metric units of length, mass, and capacity?	170-171	5A,B	Refer to MAP ques

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				# 4, 28
84	2. How do we convert from metric units to metric units?	170-171	5A,B	
85	3. Practice converting and measuring metric units.	170-171	5A,B	
86	4. What is a power (exponents and bases)?	94-95	3B	MU7 pg. 52
87	5. How do we express a number in standard and exponential form?	12, 13 94-95	3B	MU7 pg. 87, 93
88	6. What is a square root and how do we find the square root of a number?	356-357	3B	MU7 pg. 82
89	7. What is scientific notation?	96-97	2A	MU7 pg. 54
90	8. How do we express numbers larger than 1 in scientific notation?	138-139	2A, 5A	MU7 pg. 185
91	9. How do we convert from scientific notation to standard form?	558-559	2A, 5A	
92	10. How do we multiply and divide numbers in scientific notation?	296-297	2A, 5A	

Unit VIII: Metric System, Exponents, Number Properties

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
93	11. What are negative integral exponents and how do they relate to sci. not.?	558-559	3B	
94	12. What are properties under addition and multiplication ?	46, 82	3D	MU7 pg. 107-117
95	13. Properties involving integers.		3D	
96	14. Review			
97	15. Test			

Unit: IX. Ratio and Proportion

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Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
98	1. What are ratios, equal ratios, and how are they written?	374-375	4B	MU7 pg. 62
99	2. What are rates and unit rates and how are they used?	376-377	3G	MU7 pg. 127
100	3. How do we solve proportions?	378-379	3G	Refer to MAP ques 8, 22, & 23
101	4. How do we use proportions to solve scale drawing and similar figure problems?	380-381	3G, 4B	MU7 pg. 64, 125, 129, 131, 138
102	5. How can proportions be used to solve recipe and other miscellaneous problems?	382-383	4B	MU7 pg. 125, 187 SRD 5

Unit: IX. Ratio and Proportion

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
103	6. Review			
104	7. Test			

Unit: X. Percents

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
105	1. What is a percent and how do we convert fractions, decimals, & percents?	386-391	2A,B	Refer to MAP ques # 5, 6, 36, 45
106	2. How do we work with percents greater than 100 and less than 1?	392-393	2A,B	
107	3. How do we find the percent of a number?	394-399	2A,B	

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108	4. How do we find what percent one number is of another?	394-399	2A,B	
109	5. How do we find what percent one number is of another?	394-399	2A,B	
110	6. How do we use lessons 3-5 to solve tax problems?	405	2B	MU7 pg. 66
111	7. How do we use lessons 3-5 to solve discount problems?	405	2B	
112	8. Practice solving tax and discount problems.		2B	MU7 pg. 66

Unit: X. Percents

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
113	9. How do we use lessons 3-5 to solve commission problems?		2B	MU7 pg. 66
114	10. Practice solving commission problems.		2B	
115	11. Review			
116	12. Test			

Unit: XI. Statistics

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
117	1. What is statistics?	418	5D	Refer to MAP ques # 14, 20, 30
118	2. A) What is mean, median, mode, and range? B) How do you find mean, median, mode, and range?	150-153	5D	MU7 pg. 215

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119	3. How do we interpret bar and line graphs?	22-27	5D	MU7 pg. 211, 217
120	4. How do we read and interpret histograms?	420	5D	MU7 211, 217, 219
121	5. How do we read and interpret circle graphs?	422	5D	MU7 pg. 211, 217
122	6. How do we create histograms, bar, line, and circle graphs?	420-421, 430-43 26-27, 424-427	5E	
123	7. Practice creating histograms, bar, line, and circle graphs.	420-421, 430-43 26-27, 424-427	5E	
124	8. What are misleading statistics?	432	1B	MU7 pg. 23, 213

Unit: XI. Statistics

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
125	9. Review			
126	10. Test			

Unit: XII. Probability

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
127	1. What is theoretical probability?	496	6C,D	MU7 pg. 158-162, & 242
128	2. What are mutually exclusive events?	498	6C,D	
129	3. What is Statistics and Probability?	502	6C,D	MU7 pg. 236
130	4. How do we represent outcomes in a list form or as a tree diagram?	508	6C	Refer to MAP ques # 16, 21, 33, 37
131	5. How do we find the probability of independent events?	510	6C,D,E	

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132	6. Review			
133	7. Test			

Unit: XIII. Geometry

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
134	1. Define geometric terms: planes, rays, points, lines, line segments, angles, parallel and perpendicular lines.	326	7G	MU7 pg. 299, 301

Unit: XIII. Geometry

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
135	2. How do we measure and classify angles?	328	7G	MU7 pg. 195
136	3. What are the classifications of quadrilaterals (and polygons)?	344	7G	MU7 289, 291, 293
137	4. What is the sum of the angles of a triangle or quadrilateral?	341, 344	7G	MU7 pg. 295
138	5. How do we classify triangles by sides and angles?	340	7G	MU7 172, 174, 297
139	6. How do we find the perimeter of polygons?	58-59	5C	MU7 pg. 203
140	7. How do we find the area of squares, rectangles, and parallelograms?	98-101	5C	MU7 166, 193, 203
141	8. How do we find the area of triangles and trapezoids?	100-101	5C	MU7 pg. 189
142	9. How do we find the circumference of circles?(Define:radius,diameter, pi)	102-103	5C	MU7 pg. 203
143	10. How do we find the area of a circle?	102-103	5C	MU7 pg. 203
144	11. What is the Rectangular Coordinate Plane?	562-563	4C	

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	How do we plot points?			
				MU7 pg. 140, 144,
145	12. How do we plot points forming quadrilaterals and compute their perimeter & area?		4C	150, & 166 SRC 2 & SRD 6 ,7
				MAP ques. # 7, 11, 17, 27, 31, 38, 40

Unit: XIII. Geometry

Day #	Aim/Lesson	Text Pages	Perform. Indicator	Other Resources
146	15. What are prisms, pyramids, cones, spheres, and cylinders?	456-459	5C	MU7 pg. 132, 134
	How do we find the volume of prisms? (rectangular, triangular, square, and cube)	186-187		MU7 pg. 207
147	16. Practice finding the volume of prisms.	187	5C	MU7 pg. 193
148	17. How do we find the volume of a cylinder?	470-471	5C	MU7 pg. 203
149	18. How do we find the volume of pyramids, spheres, and cones?	472-475	5C	MU7 pg. 203
150	19. How do we find the surface area of spheres and prisms?	460-461	5C	MU7 pg. 194, 203
151	20. Review			
152	21. Test			

Supplemental Resources
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Silberg, Robyn.

Pre-Algebra, 1996, Frank Schaffer Publications, Inc.

Vivian, Mary Lee.

Pre-Algebra, Instructional Fair, Inc.

Winkle, Louanne.

Math 5-6, 1996, School Zone Publishing Company.

Winkle, Louanne.

Multiplication & Division 5-6, 1996, School Zone Publishi