2023

MTH 50 Syllabus

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The College of Staten Island
Office of Academic Support

Math 50 Course Outline

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OER Text: ***Intermediate Algebra*** *by OpenStax, Senior Contributing Authors, Lynn Marecek, Santa Ana College &* Andrea Honeycutt Mathis, Northeast Mississippi Community College
https://openstax.org/details/books/intermediate-algebra-2e

Calculator:Scientific Calculator only (No Graphing or Programmable Calculators. Cell phones are not allowed)

Day	Section	Topics	Practice	
			In-Class	Try on Your Own
1	1.2	Operation with Integers	**Pgs. 39-40**: 71a, 73, 75, 79a, 81, 83, 95a, 95d, 97a, 97d	**Pgs. 39-40**: 72a, 74, 76, 80a, 82, 84, 96b, 96d, 98b, 98c
	1.1	Operation with Integers	**Pg. 21**: 21, 23, 25	**Pg. 21**: 22, 24, 26
	1.2	Absolute Value	**Pg. 39**: 63, 65	**Pg. 39**: 64, 66
	1.3	Multiplication and Division of Fractions	**Pg. 54:** 143, 145, 151, 153,	**Pg. 54:** 144, 146, 152, 154,
7/17/23			161, 165	162, 166
2	1.3	Addition and subtraction of Fractions	**Pgs. 54-55:** 173, 177, 179, 181	**Pgs. 54-55: 174, 176, 178**
	1.5	Evaluating Algebraic Expressions	**Pgs. 84-85:** 313, 329, 343	**Pgs. 84-85:** 314, 330, 360
			367, 375	370, 380
	2.1	Solving Linear Equations	**Pg. 113:** 5, 7, 9, 11	**Pg. 113:** 6,8,10,12
		Solving Linear Equations	**Pg. 218:** 498-500, 504, 505	**Pg. 225:** 625, 627, 629
	1.1	Prime Factorization and Least Common Multiple	**Pg. 21: 7, 9, 11, 13, 15, 17**	**Pg. 21: 8, 10, 12, 14, 16, 18**
7/18/23				
3	2.1	Solving Linear Equations with Fractions	**Pg. 114:** 43,45,47,51	**Pg. 114:** 44,46,48,52
		Solving Linear Equations with Fractions	**Pg. 218:** 501, 511-514	**Pg. 225:** 626, 631
	2.3	Literal Equations	**Pg. 220:** 540, 541, 543	**Pg. 220:** 542, **Pg. 225:** 634
	2.7	Solving Absolute Value Equations	**Pg. 223:** 606-608, 610	**Pg. 223:** 609, 611
7/19/23				**ONLINE TEST 1**
4	1.4	Converting: Fraction, Decimal & Percent	**Pgs. 71-72:** 275, 279, 281, 283, 285, 287, 289	**Pgs. 71-72:** 276, 280, 282, 284, 286, 288, 290
	2.2	Percent Problems and Applications	**Pgs. 132-133:** 117a,119a 121, 127	**Pgs. 132-133:** 117b,119b 122,128
	2.2	Percent Increase and Decrease	**Pg. 133:** 131,133	Pg. 133: 132,138
7/20/23	7.5	Ratio and Proportion	**Pg. 729:** 265, 267, 269	**Pg. 729:** 264a, 266, 268

5	2.2, 2.3	Problem Solving - Applications of Linear Equations	**Pg. 219:** 519-521 **Pgs. 220-221:** 546, 551	**Pg. 225:** 644, 646, 649, **Pg. 225:** 647 **Pg. 225:** 652
	Supplement		**Problems:** 1,2	**Problems:** 3,4
	2.5	Solving Linear Inequalities	**Pg. 222:** 568, 571, 572, 575, 577-580 **Pg. 225:** 641	**Pg. 222:** 573 **Pg. 225:** 637-639
	2.7	Solving Absolute Value Inequalities	**Pg. 224:** 614-616, 618,	**Pg. 224:** 617, 619, 622
7/24/23		Review	Review Sheet Handout	**ONLINE TEST 2**
6		Exam 1 (90 minutes)		
	3.1	Rectangular Coordinate System	**Pg. 356:** 391, 393	**Pg. 356:** 392, 394
	Supplement		**Problems:** 5,6	**Problems:** 7,8
		Graphing Using the Table Method	**Pg. 356:** 395, 397, 399 **Pg. 368:** 543	**Pg. 356:** 396, 398, 400 **Pg. 368:** 544
7/25/23		Graphing Linear Equations in One Variable	**Pg. 356:** 403, **Pg. 368:** 545	**Pg. 356:** 402
7	3.1	Graphing Linear Equations in Two Variables by using Intercept Method	**Pg. 357:** 408, 410, 412, 414, 416	**Pg. 357:** 409, 411, 413, 415, 417
	3.2	Slope Formula - Slopes of Horizontal and Vertical Lines	**Pg. 358:** 418, 420, 422, 424, 426, 428 **Pg. 367:** 539a/b	**Pg. 358:** 419, 421, 423, 425, 427, 429 **Pg. 367:** 540
7/26/23	3.2	Equation of a Line - Slope Intercept Form y=mx+b	**Pg. 359:** 434, 436	**Pg. 359:** 435, 437
8	3.2	Graphing Equation of a Line by using Slope Intercept Form y=mx+b, Intercepts, and One Variable Equations	**Pg. 359:** 430, 432, 438, 440, 442, 444, 446 **Pg. 367:** 541	**Pg. 359:** 431, 433, 439, 441, 443, 445, 447
	3.3	Equation of a Line - Write in Slope Intercept Form	**Pg. 360:** 454, 456	**Pg. 360:** 455, 457
7/27/23	3.3	Graph and Find the Slope Intercept Form of the Equation of a Line - Given a Point and Slope	**Pgs. 360-361:** 458, 460, 462, 464, 466, 468 **Pg: 368:** 546	**Pgs. 360-361:** 459, 461, 463, 465, 467, 469 **Pg: 368:** 547
9	3.2	Parallel and Perpendicular Lines	**Pg. 359:** 450, 452	**Pg. 359:** 451, 453
	3.3	Parallel and Perpendicular Lines	**Pg. 361:** 470, 472, 474, 476	**Pg. 361:** 471, 473, 475, 477, **Pg. 368:** 549
	3.4	Graphing Linear Inequalities	**Pgs. 361-362:** 478a-e, 480, 482, 484, 486, 488 **Pg. 368:** 550, 551	**Pgs. 361-362:** 479a-e, 481, 483, 485, 487, 489 **Pg. 368:** 552, 553
7/31/23		Review	Review Sheet Handout	**ONLINE TEST 3**

10		Exam 2 (90 minutes)		
	Supplement	Polynomials - Addition and Subtraction	**Problems:** 9, 10	**Problems:** 11, 12
	5.1		**Pg. 573:** 487	**Pg. 567:** 347, 349, 351,
			Pg. 567: 346, 348, 350, 352, 360	353, 359
	5.2	Exponents - Product Rule, Zero Exponents, Power Rule (Up to Scientific Notation)	**Pg. 568:** 371, 377, 381, 383 **Pg. 569:** 398, 399, 410	**Pg. 568:** 373, 378, 380, 382 **Pg. 569:** 400, 411, 412
	5.3	Multiplying Polynomials	**Pgs. 570-571:** 430, 435, 442, 444, 445, 452, 454, 458	**Pgs. 570-571:** 432, 436, 443, 446, 447, 448, 449, 453, 457, 459
8/1/23			**Pg. 573:** 502, 504	**Pg. 573:** 503, 505, 506
11	6.1	Factoring - Common Factor	**Pg. 648:** 341, 343, 345, 347, 348	**Pg. 648:** 342, 344, 346
	6.2	Factoring Trinomials a=1	**Pg. 600:** 61, 63, 65, 67, 69 71	**Pg. 600:** 62, 64, 66, 68, 70 72
			Pg. 648: 355, 358	**Pg. 648:** 356, 357
	6.1	Factor by Grouping	**Pg. 648:** 349, 351, 352	**Pg. 648:** 350, 353
	6.2	Factoring Trinomials a>1	**Pg. 601:** 111, 113, 115, 117	**Pg. 601:** 112, 114, 116
			Pg. 649: 372, 374, 376	**Pg. 649:** 373, 375, 377
8/2/23				**ONLINE TEST 4**
12	6.3	Factoring Difference of Squares	**Pg. 649:** 388, 390, 392	**Pg. 649:** 389, 391, 393
	6.5	Solving Equations and Problem Solving	**Pg. 650:** 422, 424, 427, 429 431	**Pg. 650:** 423, 428, 432
			Pg. 642: 321, 323, 325 327	**Pg. 642:** 322, 324, 328
	6.5	Solving Equations and Problem Solving	**Pg. 651:** 441, 442	**Pg. 652:** 460, 461
	Supplement		**Problems:** 13, 14	**Problems:** 15, 16
	7.1	Simplifying Rational Expressions	**Pg. 666:** 5, 7, 9, 11, 13	**Pg. 666:** 6, 8, 10, 12, 14
			Pg. 749: 381, 383	**Pg. 749:** 382, 384
8/3/23			**Pg. 666:** 21, 23, 27	**Pg. 666:** 22, 24
13	7.1	Rational Expressions - Multiply and Divide	**Pgs. 666-667:** 31, 33, 35, 37,43	**Pgs. 666-667:** 32, 34, 36, 38,44
			Pg. 749: 386, 387, 389, 391	**Pg. 749:** 388
				Pg. 755: 485
	7.2	Rational Expressions - Addition and Subtraction - Like Denominators	**Pgs. 749-750:** 398, 400, 402, 404	**Pgs. 749-750:** 399, 401, 403
				Pg. 755: 487
	7.2	Rational Expressions - Addition and Subtraction - Unlike Denominators	**Pg. 750:** 409, 411, 413, 415, 417, 419, 421	**Pg. 750:** 410, 412, 414, 416, 418, 422
8/7/23				**ONLINE TEST 5**

14	7.4	Rational Equations	**Pg. 751:** 435, 437, 439	**Pg. 751:** 436, 438, 440
	7.4	Rational Equations	**Pg. 751:** 443, 445	**Pg. 751:** 444, 446
	7.5	Applications	**Pg. 753:** 465, 467	**Pg. 753:** 468, **Pg. 755**: 502
	Supplement		**Problems:** 17, 18	**Problems:** 19, 20
	5.2	Negative Exponents - Division Rule	**Pgs. 568-569:** 384, 388, 390, 392, 401, 408, 414	**Pgs. 568-569:** 391, 402, 404, 409, 413, 416
			Pg. 573: 491, 494, 496	**Pg. 573:** 497, 500
	5.4	Division of Polynomials	**Pg. 571:** 463, 465, 467, 471, 473	**Pg. 571:** 464, 466, 468, 472
	8.1-8.2	Roots and Radicals - Simplify	**Pgs. 875-876:** 481, 483a, 486a, 487, 489, 491a, 496a/b, 498a/b, 501a/b, 504a/b	**Pgs. 875-876:** 482, 484a, 486b, 488, 490, 492, 497a, 502a, 503, 505a/b
			Pg. 881: 579	**Pg. 881:** 580
8/8/23		Review	Review Sheet Handout	
15		Exam 3 (90 minutes)		
	2.3	Pythagorean Theorom	**Pg. 148:** 203, 205. 207, 209	**Pg. 148:** 204, 206. 208, 210
	8.3	Rational Exponents	**Pgs. 876-877:** 507a/b, 508a/b, 511c, 512a, 513a, 515b	**Pgs. 876-877:** 507c, 508c, 512b, 513c
	8.4	Simplifying, Adding, and Subtracting Radical Expressions	**Pg. 877:** 517a, 518a, 519a, 520	**Pg. 877:** 521
8/9/23				**ONLINE TEST 6**
16	8.4/8.5	Multiplying and Dividing Radical Expressions	**Pgs. 877-878:** 522a, 524a, 525a, 526 , 527a, 528, 530, 532a	**Pg. 878:** 527b, 532b **Pg. 881:** 591
	8.6	Solving Radical Equations	**Pg. 846:** 287, 289, 297, 301	**Pg. 846:** 288, 290, 298, 303
			Pg. 878: 538, 539, 541, 544	**Pg. 881:** 600, 601
	8.8	Complex Numbers (No Division)	**Pgs. 879-880:** 564a/b, 565, 567, 568, 569, 570, 572, 573, 574	**Pgs. 879-880:** 564c, 566, 571, 596, 597
8/10/23	6.5	Solving Quadratic Equations by Factoring and	**Pg. 641:** 284, 289, 293	**Pg. 641:** 285, 291, 294
17	9.1	Square Roots	**Pg. 1008:** 395, 396, 398, 399, 403, 407	**Pg. 1008:** 396, 400, 404 **Pg. 1014:** 529
	9.2	Solving Quadratic Equations using Completing the Square	**Pg. 1008:** 411, 412, 415, 417, 419, 420	**Pg. 1008:** 416, 418 **Pg. 1014:** 530
	9.3	Quadratic Formula	**Pg. 1009:** 435, 436, 437, 438, 439, 440	**Pg. 1014:** 531
8/14/23				
18	9.6	Graphing a Parabola by Plotting Points using Vertex Point, Symmetry and Y-Intercept	**Pg. 1011:** 480, 481, 482, 483, 487, 488, 489, 490	**Pg. 1011:** 484, 492 **Pg. 1014:** 540, 541
	11.2	Graphing a Parabola using $y = (x - h)^2 + k$ or $y - k= (x - h)^2$	**Pg. 1191:** 264, 265, 266, 267, 268, 269, 270, 271	
8/15/23		Final Exam Review		**ONLINE TEST 7**
19 8/16/23		Final Exam Review	Review Sheet Handout	
20 8/17/23		Final Exam (2 hours)		

2023 Summer Immersion Program – Math 50 Workshops

As a student in this free course, you are given the opportunity to complete the requirements for MTH 50.

To pass MTH 50, students must:

- not be absent for reasons other than medical or personal emergencies (which must be appropriately documented)
- not be absent in excess of 12% of total workshop hours
- make-up all absences with tutoring (appointments must be made in 1L-117)
- have an average passing grade of 70 which is calculated as follows:
    - 65% based on three in-class exams and the online homework tests
    - 35% based on the final exam
- complete online homework tests and receive 70 and above on all homework before each test is due

EXAMS

There will be three exams plus a cumulative final exam. No make-up exams due to absences are permitted after the exam return date.

HOMEWORK, ONLINE TESTS AND STUDY PLAN

- Students are required to do the homework from the textbook (see your course outline for each day's assigned "try on your own" problems).
- Students must complete the online homework tests and score 70 or above the day each online homework is assigned on the course outline.
- Online tests may be completed on your personal computer at home or on campus in 1L-212.
- Free tutoring is provided by the Center for Academic Student Assistance (CASA) during the immersion program. Times and locations of the tutoring services will be given to you by your instructor.
- As you complete online tests in MyMathTest, the program will generate a personalized Study Plan showing your areas of weakness and providing questions for further practice. You are **strongly encouraged** to work on the study plan to achieve mastery in areas of weakness. Your instructor will monitor your progress.

GRADES

The only grades given in this course are the following:

P: 70% or better course average (includes fulfillment of all requirements stated above). Students must take **all** exams in order to pass the course.

F: Course average is below 70%.